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STUDIES FROM
THE CITY AND COUNTRY SCHOOL

CAROLINE PRATT, *Editor*

EXPERIMENTAL PRACTICE IN THE CITY AND COUNTRY SCHOOL

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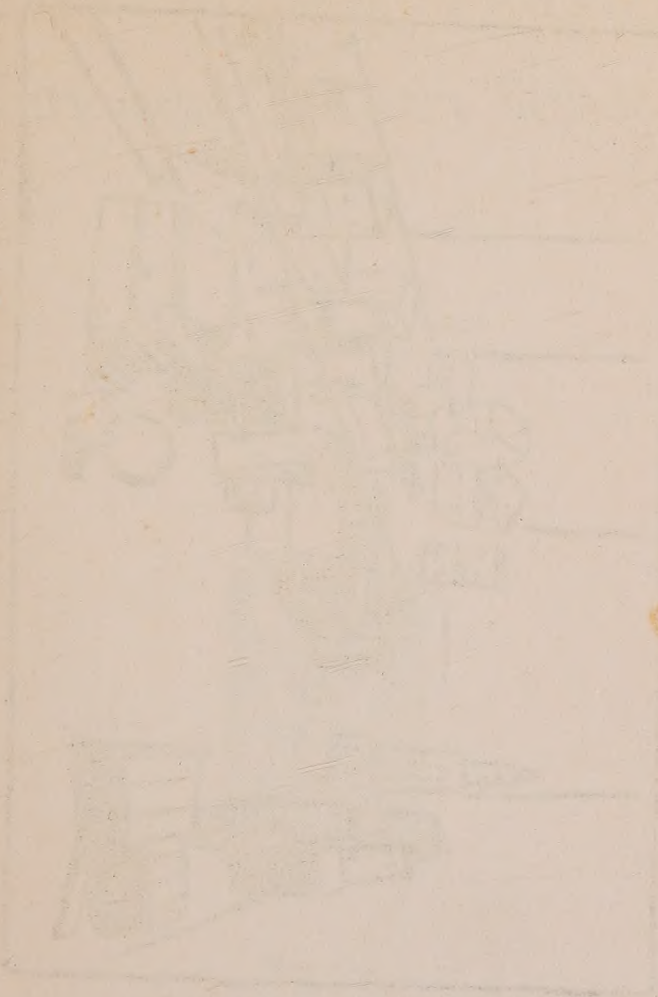

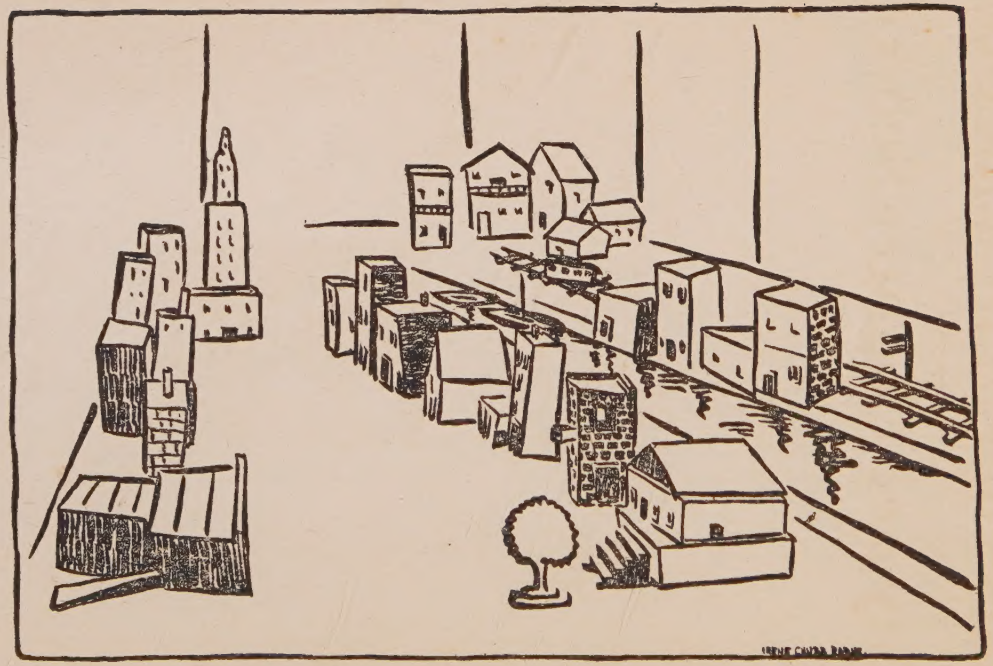

The Play City

Experimental Practice *in the* City *and* Country School

EDITED BY
CAROLINE PRATT

WITH
A RECORD OF GROUP SEVEN
BY LULA E. WRIGHT

Two Line Drawings
by Irene Chubb Robus

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PREFACE

In a quiet street of old New York stands The City and Country School, founded ten years ago by Caroline Pratt and known during the early years of its history as "The Play School." It has been one of the first among educational pioneers frankly to avow itself experimental, and to attempt a revision of school practice "from the ground up" by discarding, at the beginning of its work, all the traditional preconceptions that govern the standard practice of our schools today. In the course of its development provisions in regard to program, curriculum, and method have been adopted only as they have appeared to be justified by the school's own experience, and the situations arising within its classrooms.

To study the interests and abilities of the growing child as they are manifested, to supply an environment that, step by step, shall meet the needs of his development, stimulate his activities, and orient him in his enlarging world, and that shall at the same time afford him effective experiences in social living—this in brief has been Miss Pratt's thesis and from it, through successive years of trial and error, she and her co-workers

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have built up the experimental practice that she discusses in the following pages, and that is pictured in detail by the various school records, one of which, Miss Lula Wright's record of her seven-year-old class, presents the objective material of this initial study.

These school records, written by the classroom teachers from copious daily notes, are organized according to a plan that has been adopted after much painstaking study and co-operative effort on the part of the school staff. They are in themselves experimental. Their publication invites criticism and suggestions in matters of form as well as of content. Indeed, as Miss Pratt has stated, the purpose of the school in publishing its records is to secure discussion of them, and of the school procedure pictured by them.

To those readers to whom the story of The City and Country School is as yet unknown, the following details will be of interest. Miss Pratt began her experiment in 1913 with a small group of children of pre-school age gathered from various homes in the neighborhood. During the early years of its development the experiment was maintained through the generosity of a few private donors. In the beginning tuition was entirely free, but parents who were interested and able to do so, from time to time contributed to the school funds. Recently, at the request of the

parents, tuition fees were adopted, but at the same time it was agreed that a large percentage of scholarship pupils should at all times be enrolled. In this way the school's original purpose, to serve children who would normally be found in the city's public schools, has been preserved, at the same time that its growing reputation has attracted many parents whose children would otherwise have been sent to private schools.

The name first given it, "The Play School," reflects a special interest of the founder, her original inquiry into the educational possibilities of children's play and its place in school procedure. As the experiment progressed, however, and older classes began to be included, the children protested vigorously against this name, and it was changed to "The City and Country School" at a period when a school vacation farm was maintained as part of the experiment. Though somewhat incongruous today when its application is limited to the city plant, this second name has become so identified with the experiment as to make the wisdom of any further change seem questionable.

In addition to its primary purpose, the development of an experimental practice, The City and Country School has for some years co-operated with the Bureau of Educational Experiments, affording the research staff of that organization

opportunities for observations and measurements of normal children who are developing in an environment particularly favorable to health and to spontaneity. Results of these studies are published from time to time by the Bureau of Educational Experiments, and there has been no attempt to include them in the following pages. The school and its staff have at all times remained responsible for their own experiment, and the scope of the present volume is limited to their specific problems of experimental practice.

New York City,
June, 1924.

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EXPERIMENTAL PRACTICE IN THE CITY AND COUNTRY SCHOOL

THE ARGUMENT

Experimental Practice in the City and Country School

THE ARGUMENT

Our school is now ten years old. It started with one small group of neighborhood children of four and five years of age. Each year we added a new group of "fours," together with a teacher. None paid tuition. In fact, there was so little confidence in us that it was difficult to get the children on any terms. When the parents found that we did not teach the children to read and write at six, we constantly lost individuals. For two years we dropped the children at seven, in order to study our situation and provide a better program. By this time we had succeeded in establishing the fact that we were doing something with the younger children which was recognizable and valuable, and gradually parents began to have confidence that we could do the same thing further along the road towards High School.

There has been little giving way on what we consider important principles of our experiment. We have established ourselves finally through parents who were already interested in a new type of education for their children. Such parents are moving into our neighborhood each year in order to send their children to our school.

We now have a class of twelve-year-olds (seventh grade) some of whom will be ready for High School by the end of another year. They are an interesting group, but those who have been with us longest have suffered from having been always the oldest class in school. Their confidence has been more or less impaired because they have had nothing to look forward to. However, we are quite sure this is a peculiar condition and will not hold in future groups. We now have a nine-year-old group (fourth grade) made up of children all of whom have had pre-seven-year-old experience in the school. With this class comes our first real opportunity to show the results of our particular treatment.

The very fact of publishing our procedure would seem to tend to crystallize it. But to those of us within the school, the procedure is not crystallized. It is a loose framework made primarily to conserve individual freedom. Imitative teachers may try to do what we have done. They, perhaps, will use the experience afforded by our special neighborhood, which may or may not be appropriate to theirs. But it is hoped that our procedure will also fall into the hands of imaginative teachers to whom it will give courage to regard the fundamental principles of education, and to work out a new and perhaps better technique,

and certainly one related to their own environment.

The experiences basic to our procedure in the earlier years and out of which our programs for the older children have been developed, are those provided by adaptable materials and the play opportunities that such materials afford. That is to say, whatever little children have half experienced in their small wanderings and happenings, they can more fully experience through work with blocks and kindred materials. Play, or as the children call it "work," with these materials is an organizing experience. At three or four, children come to block building, for example, after a good deal of experiencing with their bodies. They themselves have been everything—cows, animals of all kinds, engines — everything that moves. They have been the whole thing without much particularizing. Now they become interested in the details. What part of the engine makes the whistle? what makes the movement? who pulls the throttle? Children are not interested in these as facts, but as facts to be used in play; or it would be more correct to say that what the information does to the play is to keep it going and help it to organize as a whole, to raise new inquiries, and above all to offer opportunities for

new relationships. After all, many things whistle; many things move on wheels. Here are new applications, new discoveries, new combinations, a constant reorganization. This is what block building means to us. It makes no difference that the things the children play with have no representative value to begin with. We have watched the building going on for so long that we know this will come in good time. We are satisfied to have the things explained to us. We are deeply moved when a small boy calls our attention to a piece of wood that might be anything and says, "This is my boat," and then whispers, "Come and put your ear down close beside it and hear the waves."

But representation is on its way as well. There are times when we wish the world in general might be admitted to the lay-outs of the children at six. They have made engines and cars by this time which are pretty correct in detail; they lay out their tracks and streets in accordance with the points of the compass; they build representative city buildings with enough of the outstanding characteristics so that they are recognizable; they distinguish between and imitate the sounds of different types of street noises, whistles, escaping steam, crunching wheels; they make different types of people to take part in the activities.

These constitute the overt behavior signs. The whole performance is not unlike that of many of

our adult men and women who are recognized as people of note. Heads of railroad systems, theatrical managers, orchestral conductors manipulate the particular material they deal with to help them clear up their thinking and show new relationships. What this overt behavior shows to the teacher is what is going on in the organism: the changes that are taking place, the growing power, or perhaps a stepping back. It shows a new direction or no direction at all.

The teacher is wedded to a job which is not teaching at all when she uses such adaptable materials as blocks; or, shall I say, that all her teaching, or whatever she does with the children, follows the discoveries she makes? Children who do not make use of adaptable materials, who do not convert materials to their own uses, obviously have no uses to put them to. Not to have a play use for materials at three, four, five, six years of age indicates a need for careful analysis and concentrated effort on the part of the teacher. Sometimes we find a child has been habituated to follow the lead of an older child, or has been too dominated by the adults about him to feel free to attack materials.

The unfortunate child is the one who has his interest riveted in people, because he cannot manage them, cannot convert them to his purposes. They dominate him and he is converted to their

purposes. The youngster has to work his life out on something. He is full of motor activity and without materials he becomes a struggling little being working with what he cannot understand, much less manage. It is this sort of confused life which becomes turned in on itself. I am not exaggerating when I say that we have had such children come to us at three years old; more at four; still more at five and so on up through the group ages. Our own children have less of this sort of struggle because we recognize the necessity for them to have materials which they can work with, which they can dominate, and feel their power over. The human element is in companions of their own age with whom they are on a footing and with whom they can cope. The teacher remains in the background and sees that each of the children has an opportunity and that the situations are fairly simple and capable of adjustment to their understanding. Children sometimes have "fanciful" ideas such as imaginary companions. I have never observed these children closely, but I am inclined to think that the play would not go on for any length of time if the children had not experienced reality in its related form and been able to build their play upon it. Such children seem to be keen observers of those realities which they can turn to account in their play. They make incomplete or half-understood situations complete when they play with them.

Often a child lacks all experience with the related activities of the adult world upon which his play is bound to be built. Some types of children experience the activities going on, but only as isolated experiences. The treatment of each of these cases, which are typical and which every teacher is bound to meet, is different. A child habituated to follow another child is shifted about so that the conditions will throw him on his own and he is stimulated constantly to take hold of materials. We take the problem into the home and try to get co-operation to break up the dependence which we trace there. The child lacking experience with adult-related experiences has the adult material world thrown open to him on the street, on the ferries, in the street cars, the elevated, and subways, and he is made conscious of the interdependence of these. Sometimes children attack nothing at all, and when this occurs we have the means of finding out whether it is due to physical causes. Extreme fatigue is sometimes traced to constant lack of sufficient sleep. If this cannot be met at home, we give the child a chance to sleep at school.

We make every effort to get all the children to play with these adaptable materials. If the children come to us young enough, they work on floor schemes without much urging. The best work is done by the boys although there are good girl block builders as well. We should like to find out

why girls are not so ready to organize on a broad basis as boys. Sometime we may be informed that it is because of the biological difference in the sexes, but in the meantime we are working upon the supposition that it is social. Whatever her future is to be, we can see no reason why it is not as valuable for a girl as for a boy to use materials which lead out into ever wider experiences instead of remaining centered in less active interests. In our own experience we find that we treat girls differently from boys. We cannot help ourselves. If we do it, we who are trying above all else not to make a distinction while the children are so young, how much more is the distinction made in casual contacts? Society cannot get used to "boyish" reactions in our girls, even very little ones. Excusable roughness in boys still remains questionable in girls. They are pigeonholed by the most tolerant of us, and by others they are victimized by deep-rooted habits of thought. Nevertheless, while we encourage both boys and girls with suitable materials to carry out domestic experiences, we also encourage girls as well as boys to follow any lead out into the bigger world. There are many references to this difference between boys and girls in our school records.

We pin a large amount of faith to block building for the younger children. The reason for this

is that blocks are the most adaptable materials for their use that we can find. I am again and again surprised, as are many of our experienced teachers, by the questioning of the value of block building, and I am just as often reminded that it is only the initiate who see and appreciate children as growing individuals. The ordinary visitor takes the products of the children on their face value—looking for an approach to the adult's conception of the thing produced. We, on the contrary, should be alarmed if we saw such an approach. We should conclude that the children had been trained along one line to an abnormal degree and we should expect to find that this had been done at the expense of their general growth. We go back of the block building to get at the value of it to the individual children.

I am at the same time aware that the school floor often looks like an unholy mess. However, I remind myself that any adult performance has such periods if we were permitted to see it in the process of becoming something. Rehearsals are never open to the public as our schoolrooms are and I venture to say the public would hardly be on hand to see the finished play if they were. Often this happens to us. Visitors catch us in a mess and never return. On the other hand, we have an object other than securing a general public appreciation of our work. We wish our par-

ticular public to see and understand education in its movement.

Another aspect of block building is its quickening effect on other activities and particularly on shop work. A suggestive bench and tools and lumber are in every room, even that of the three-year-olds. Some purposeful bench work begins at four and all the children make something for their play schemes at five. These products are very crude, but have features, always, which at least suggest the object. At six the bench work takes on more detail and is better formed, and at seven the children have quite definite ideas and can produce what they want. At eight we begin to teach them a method of work if they have not evolved one themselves. Wrong ways of handling tools are supposed to have been corrected by this time.

The rooms are all furnished with clay up to seven, when the children go to the modeling room for help in their work. Up to this time they have been making objects incidental to their other class room activities such as block building. Now they learn the technique of modeling so that the best of their products may be fired. We are inclined to challenge any system of graduated models to produce better products at eight, nine, and ten than does our system in our shop and modeling.

In addition to blocks, our yard materials are adaptable to children's play purposes. The school

records show what sort of play the children carry out with these big materials. Because they use themselves to impersonate, we are inclined to look upon this play as the beginning of dramatics, as such, if there is any distinction to be made between types of play. The eight-year-old children and those older have only occasional access to these materials. Other opportunities for spontaneous play with materials are supposed to occur in connection with their program. We have been led through our experience to assume that the children at eight and thereafter will play with the new information they are acquiring. When occasionally the yard materials are thrown open to them, or a room with blocks, they play out their new information quite spontaneously. But the materials they care most for in group work are clothes and stage settings. They launch themselves in dramatics proper. In order to play together and produce an organized something, they find it necessary to know what they are going to do before they begin, and, after a trial and error method, they are apt to decide to get something down on paper. In getting used to a new technique such as this, the children are often self-conscious. It is surprising that they should be so when they have been quite the contrary in their former play with big materials, no matter who was observing. Soon, however, they become ab-

sorbed in it and forget themselves. It is at this point that we get some interesting productions.

What we speak of as adaptable materials can best be understood by throwing them into contrast with materials which are not adaptable. Or to express it in a different way, materials which may be used to promote the purposes of the teachers as set over against those which are intended to promote the purposes of the children.

Children are easily led to think they are carrying out their own purposes through organized sets of materials, when in fact they are carrying out the set purposes of the teacher and in her mind serving the future instead of carrying out their own purposes and serving the present. Sloyd is one example of this, and Montessori in her didactic material, another. Sloyd originated in Sweden. When I went to the fountainhead at Naas to take the summer course twenty years ago, my training had been, frankly, through sets of graded models of joints with no application whatever. I had been supposed to get all the operations which a cabinet maker would use, but never had made anything that could be used. At Naas I was supposed to get the latest thing through a series of "useful" models with similar graduated steps. The emphasis was upon the graduated

steps, not upon the use of the model. The fact was that none of the models were useful to me. It had never occurred to these educators that the need of the individual had anything to do with usefulness. "Manual Training" had come into existence as an educational factor under a cloud. To meet the requirements of "education" it had to be graded: for education meant training to these people; they had not caught up with the modern idea. How far they had come through, however, was well illustrated when we placed Sloyd in contrast to what was going on in the Denmark public schools which we visited on our way home. There we found whole classes sawing in unison while the teacher counted. Shop work here was just one more instrument with which to bore children to death. For the children in all this work, only the narrowest thought process was operative. Every bit of work was planned by the teacher. There was no chance for the potential ingenuity, initiative, imagination with which the use of these materials is fraught. The essence of industry has always been left out of manual training courses, for who shall deny that the essence of industry is to produce?

Madam Montessori's didactic material is purposeful only from the adult point of view. Her exercises are based on the analysis of "mind" into "the senses"—which are best trained while the

children are little—into "perception" and finally into "reason," the training of which comes after the senses and perception are trained. Modern psychology has long since thrown down any such analysis of "mind." Whatever mind is, it acts as a whole and the singling out of any part of it for training irrespective of what is happening to the other parts, endangers the whole. The fact is, it cannot be done. Abstract reasoning, it is true, develops later than the full use of the senses, but reasoning has its beginning with very young children. To bring the contrast still closer, the Montessori didactic material contains a series of blocks which make a stair. When the stair is finished, the teacher's purpose is fulfilled. But I have seen children try to make use of the stair by placing the construction against a wall and trying to step up. They could not use it adequately and their purpose was cut off. If they could have made such use of the stair, the teacher would have stopped them because Madam Montessori considers this a desecration of the material. The use of it must stop with the sense-training part. It is not intended that the children should reason at this time, or should carry things to a conclusion.

The use of adaptable materials such as blocks, drawing materials, bench work, et cetera, is consistent with modern psychology which recognizes that the child mechanism works as a whole.

It is farthest from our plan to see either our programs crystallized or to have the conduct of the children become a matter of form. Our attitude towards conduct is quite the same as that towards other parts of the procedure. The children secure their own freedom by securing that of their confreres. To get the children to recognize this principle and to develop the discipline and judgment necessary to put it into practice is the goal towards which we work. The freedom of each individual is so bound up with that of the group, that it is impossible to secure freedom for one except by securing it for all.

But young children are not equal to arranging their own situations to secure individual freedom. While teachers and children discuss the situations together as they arise, not much responsibility for general conduct is thrown on children below nine, and we are careful not to have the minds of the Nines and Tens too concerned with conduct. The solution of all conduct problems lies in well-established work and play habits. A child without these is like a physical infection. He spreads aimless activity to all those except the immune. It is at least half as hard again to catch the interest of such a child at the age of six as it is at three, and until his interest is caught his conduct is a constant concern. He takes up more of the teacher's time than all the rest of the children put to-

gether. The other children should not have the responsibility of deciding what should be done with such a child, nor yet the privilege of drawing comparisons. Their quick reactions to his interruptions are sufficient. Beyond this the responsibility for him lies with the teacher.

I speak of this here, because we have been questioned as to why our groups are not more self-governing. Many will understand me perhaps, if I say that we want the quick, red-blood reactions to encroachments upon the things that are vital to the children, rather than the cool, calculating, deliberative type of pooled judgment of undeveloped minds. We are trying the experiment of seeing how far responses of children who have come through the searing process of relationships can be depended upon. Should not judgment, or response to an inner ordering of responses, be trained upon something less changeable than human material, and upon human material slowly and carefully? Too much interest in conduct is apt to breed the kind of reform which looks upon present behavior with little concern for what has gone before; for what has produced it. Our experience is that youth is particularly not to be trusted to pass judgment upon others.

It is important that experiences should relate to each other, as well as that subject matter should be related. Not only should the program of each

class admit of a unified experience, but the programs should follow in related order. How to secure related and organized experiences for the children, as well as the opportunity for a wide and useful experience at each age level is a difficult problem, because at best the set-up of a school is artificial. While the children are still satisfied with play, we can supply such opportunities for experiences. We find that at eight, or thereabouts, they want quite a different type of experience. This seems to be supplied in the eight-year program by their "work" of conducting a school store. At the same time spontaneous play interests shift to something more nearly resembling dramatics than anything they have expressed earlier.

The check upon our planning is the children's reaction. Too ardent planning often results in chaos, when a fresh start must be made. The breakdown of a program is a very vital experience to the adults. A close analysis of our programs shows that, while there is something in common going on, there are also as many things in particular as there are children. To conserve the individual opportunity requires as careful planning as does the general outline of the program.

In working out a program, the teacher has the following to refer to: records of former teachers of these children; records of former teachers of

children in successive age groups, whether of these particular children or others. Besides this, there is much unrecorded information which she can call upon. Depending on the type of person making the program these available records are used much or little. It is my opinion that none of us have become habituated to the use of this material to the extent we may in the future, and that we still stumble along learning by our own experience.

The teacher submits her tentative program for my approval in the spring previous to the school year in which it is to operate. It is then, together with all the others, submitted to the body of teachers in a series of meetings which take place after school closes, when our whole attention is given to the coming year.

For several reasons the seven-year-old program assumes a different form from the earlier ones. First, seven is the year which we have fixed to begin work with the very difficult techniques of reading, writing, and arithmetic. As we are doing this, frankly, in response to group and individual needs arising both within and without school, we try to teach them by the most effective methods of class, supplemented by individual, instruction. We feel pretty certain that the ques-

tion of whether the children are ready for such difficult techniques or not, is answered by whether they can [illegible] as a group. It is too expensive as to time and effort, both of the children and of the teacher, to teach these techniques by any individual methods. Besides, we are looking forward to and preparing for mass instruction, assuming the mass to be composed of individuals able to discriminate between what is suited to their needs and what is not.

Without discussing here why we begin these techniques at this time, the fact that we do makes necessary a more organized program than the children have heretofore experienced. They are still clinging to the strong spontaneous play element in their six-year-old program, and getting a taste at the same time of the more consciously organized programs which they will experience in future.

Also, the children are changing in their interests. They begin to be more interested in realities, in whether they are doing things "right." They narrow and define their interests and begin to be objective in their pursuits. Their drive is becoming a more conscious one. With this more conscious pursuit of what they desire comes a realization that they cannot accomplish what they want to without help. Their standards grow faster than their capacity to realize them, and

they begin to appreciate the necessity for teaching. In a sense, the seven-year-old program presented in the following pages has come out of the experiences of a particular group of children; in another sense it has come out of the organization of the whole school. These particular children had previously had certain experiences in common. Our three-year-old, four-year-old, and five-year-old records show in a general way what these experiences had been. In some of them the histories of individual children can be traced. (I might say in passing that our goal for records of the future is one in which all the individual histories can be traced, though the record will still remain a group record.) A great many problems, therefore, particularly those of adjustment to each other, had been settled before the children had entered the seventh year. At seven they had formed habits of helping themselves to materials without wasting them; of settling many of their disagreements without fighting; they could play many games and observe the rules; they could work together as a group with little friction and a great degree of individual freedom. They had certain standards of behavior to which a newer child in the group had to conform. They were able to do this year's work because of what had gone before. The program suggested was not different so far as information was concerned, but the experience

of building a city was carried out in permanent materials rather than in blocks, as had been done when the children were younger. They reorganized their experiences and information, and extended both on a city built of board, metals, et cetera, rather than of such impermanent materials as blocks. The children as a group had the information and experience for building a city; the teacher helped them to organize and extend it. I doubt if such a program could have been carried out so successfully without a similar background of experience.

In the earlier programs, our teachers keep in mind future programs, and there is always a conscious preparation for what is to come. Our use of adaptable materials leads to the play and work activities of older groups; and the general information gained at this time becomes a part of a later and fuller body. The reason these children were well prepared for the seven-year-old program was, that it was based on their earlier experiences and on subject matter already familiar to them. We recognize in all our programs a basis for new ones. Some of this subject-matter we name specifically geography, history, number and reading, language. The teachers keep these specific things constantly in mind and see that, before they are picked out as "subjects," the children have a basis for the particular kind of

subject. We expect every child to qualify in them. For example, we do not expect any child to come through seven without a number sense. Each individual has had experience in using number practically. We deliberately keep them from written number until we are sure they will not become confused; and that they may know that number has a use, a relationship. Every class in school above six has its own class treasury, from which they pay for trips and buy all their school supplies. The children below six are reminded by their teacher of the number of blocks they carry in each hand and learn the combinations up to ten. No effort is made to teach them to count, because it is a simpler, more direct process to recognize a small group of objects than to both count and combine. To a little child four is as much a unit as one, and two is as much a part of four as one is. This is a typical example of a logical teaching method as set against a logical subject matter method. In setting the table for mid-morning luncheon, the children estimate the number of children and the number of crackers and cups of milk needed. Such problems are consciously made use of by all the teachers. Although the children differ in ability to handle number problems, it is safe to say that no child who has been in the school below the period under discussion is confused by number problems, and many

of the children are far above the average in what we used to call "mental arithmetic."

No one can doubt our success in geography. We divide our work into technique and information. On the technique side we try to orient the children in their environment. We begin this at three and four. The little children learn to go about the school building and to know where they are in relation to their base of operations—their room. The fives extend out into the street and know the streets in relation to the school. They learn the names of the streets and the location of their homes in relation to the school. They extend their building with blocks to reality so far as direction is concerned. The sixes begin map-making and trace their trips on maps. Often we, as teachers, say to each other, "Do you remember how you hated to draw maps?" and point to a group of children tracing routes on paper and decorating and vivifying their productions with color and line drawings. We do not wonder they like it, and we know that the secret lies in the fact that they have been introduced to these experiences gradually, and always on a level with their ability. We have such acknowledgment from parents as: "Mary and I went to Brooklyn the other day and I failed utterly in finding my way. I couldn't believe that Mary knew the direction for she had had less experience with Brooklyn streets than I,

but finally I gave up after much disputing and Mary, aged seven, took us to our destination." Or, "Marsden, this summer, was able always to bring me back to our hotel while we were exploring foreign cities."

This early orientation we consider basic in any future study of geography and history as such. Indeed, we wonder if it is not pretty essential in any clear thinking. It can be done gradually along with growth in other directions until, (to know where one is in space, in relation to other matter becomes an inner habit of mind and body. It is acquired with increasing difficulty later.)

The basis for the informational side of geography as well as history begins wherever the children begin to experience the relationships of men to earth, and men to men. In making their small inquiries about what they see and come in contact with in their environment, they are studying geography and history. They experience history and geography in their own relationships, in such inquiries as: Where do bricks, plaster, wood, metals come from? Particularly in this informational side of geography are they getting relationships, cause and effect. Having this related information in their background, "book" geography, when they reach it, becomes a different matter. To children who have had such experiences, learning the capitals of the States has a

significance which it could never have to other children. They could not rest upon the fact that Albany is the capital of New York State. The reason why would mean to them an interesting piece of research.

We consider all inquiries into "How"—into mechanical processes—pre-science, and we definitely encourage them and make place for them. In fact, science remains inquiry into processes, however it may develop later.

The significance of such work as I have described as basic-history and basic-geography, et cetera, is very great:

First—The children have acquired a great store of useful information as well as a definite technique long before such work is usually expected of children. With such a beginning we expect our children to be launched in real historical and geographical research before they enter High School. We expect no child to enter High School with a mathematical complex. We expect that while some children may not have strong science interests, and others may not have strong art interests, all will know, at least, that a relation exists between science and art.

Second—We have a right to expect our children, having had geography for instance, in relation to other material, to retain a sense of relationships when they begin its study as an infor-

mational subject, to know that the dividing line between "subjects" is fine and always arbitrary. I think we may even expect them to "specialize" without becoming specialized themselves.

THIRD—Children will not have a chance to discard a thing before they have had anything to do with it. They have experienced "geography" unconsciously before they have had to accept it consciously as a part of their program. They already know number combinations before they are introduced to written combinations and so with science as well. No inhibitions are set up.

The fact is, the children are so eager for experience and information that there is great danger in imposing upon them, in giving them too much. Our check upon them is the length of time they individually are willing to spend upon the things they set out to do. It is safe to give them opportunity if they make use of what they get. A child with great capacity for getting information should develop along with this a capacity for putting through long periods of concentrated effort either in work or play. So far as information is concerned, our effort is to make opportunity for getting a kind which the children can make use of. This serves the child who has formed the habit of accumulating information per se, in that he is constantly tempted to put it to use. I have in mind an outstanding boy of nine who entered the school

at six with a full equipment for reading informational material as well as a large body of information. He saw no attraction in activity of any sort. Life to him was an opportunity to read. After two months of aloofness to the active part of our program, he began to build with blocks and thereby to organize his information through play. He is now nine years of age, an outstanding child in activities so far as originality is concerned, but still without the vigor he should have at this age. Nothing, however, should be interpreted to mean that we do not expect the children to carry their search for new informational material beyond the confines of what they can put to use. The rounding up of information always will be a pursuit in itself once it gets started in an individual. This is as it should be, for two purposes are being served. The children are preparing for new experiences, acquiring a body of general information while at the same time they are forming the habit of getting information for a purpose.

Learning to read has been put off deliberately until the children are seven. We are not sure that this is the place for it. It is a complicated and difficult technique which may be found to belong later on in our school work. That we can successfully teach it at seven proves nothing. It is often taught at four. What helps to guide us in our decisions regarding any new technique to be added

to programs is the use which can be made of it. In considering the teaching of reading, for example, we have to face the question of its use. Suppose children of seven to be able to read fluently, as many are. What have we in literature to expose them to? They can and do in short order exhaust the supply of what we consider good for them. We have started something which we cannot control, and unwarrantable adult problems are opened up to children, with nothing in their experience to help them to understand them. If the problems escape their notice, the evil is equally great, for they form habits of reading without understanding. Teaching children to read solves only adult present problems, but it multiplies problems for the future for very many children. It is unsafe to launch them in a technique which tends to take them from first-hand experiences and center their interest in vicarious experiences. The habit of reading fairy-tales to get excitement is vicious. This is in no way to be interpreted as discounting the value of fairy-tales where the use of them is controlled. We are glad that our children are still struggling with the technical difficulties of reading at seven; that we can still select what literature they shall be exposed to. This is the negative side of the question of program. The positive side is, that spending little time in reading and writing leaves the time

of the children of six and seven free for first-hand experiences.

What most of us want for children is a strong healthy basis in motor life and first-hand experiences to build upon.

Under our present organization of school programs, the whole set-up of which is as temporary and experimental as may be, it is true that the future programs demand a certain amount of reading and writing in order to carry forward the experiences. The children know what these experiences are to be and recognize that preparation for them is necessary. They also put to use currently what they are securing.

We have not worked out the foundations of reading and writing so definitely as we have number and geography; but our emphasis on the children's ability to express themselves orally is partly because we believe oral expression is a good general preparation for a more technical interest in language. Expressing motor and sense impressions in language, as well as being able to rehearse personal experiences, is as good preparation for what books contain as one could wish. What we need on the technical side to lead up to reading, as drawing leads to writing, is more concentration on enunciation. This we shall work upon very definitely in the next few years and shall try to record our results.

So far as a common and general body of information has developed in our curriculum or school procedure, it has had its beginning in our particular neighborhood. One persistent interest which holds throughout the first six or seven years is in boats. Why are boats so prominent in our play schemes? we are often asked. We live near the river and not far from the harbor, so boats are in the experience of our children. Ferry-boats seem to be in the experience of all the children and steamships in that of many. From these experiences the children push inquiries to other types of boats and, by constantly using this information in their play schemes, it becomes a vital part of another type of experience. If children start with boats, they not only spread their inquiries further about boats, but also they make inquiries about kindred things, such as trucks, which they find unloading at steamship docks, and railroads from which the trucks bring the freight or to which they take it. What follows from these environmental beginnings is quite logical. This serves as an example of our treatment of information. Other illustrations are given in our records.

Boats are a good basic interest for a study of history and geography. The inquiry is often made, why we do not follow the children's leads into the past or into the distant present, in these

early years. We do this at times depending upon the circumstances. I recall Miss Stott's six-year-old record[1] in which she describes several visits made by the children to a Cuban steamer. It happened that the children made unusual connections with this steamship company. To an extent, they "experienced" Cuba. They came in contact with Cuban people and with materials being taken to Cuba and those being brought from there. The men who manned the steamship became their very good friends in the course of several visits, and they helped the children to get a Cuban, as well as a steamship, experience. So far as these children related what they learned about Cuba to what they had learned through experience in their own surroundings, it changed and extended their reactions and became experience. Had these children had only a body of isolated facts to work from, even though they had experienced them, they would have had nothing with which to understand the part of Cuban life they came in contact with.

Facts, isolated, have no meaning in life. They begin to mean something only when they begin relating themselves to each other. To a child who has experienced living with others in domestic relations, a Cuban person might mean a person with

[1] Stott, Leila V., *Record of Group VI*, Bulletin of the City and Country School, New York, 1921.

domestic relations. Or if his experiences have been vivid in industrial relations, a new individual might mean a person who worked in some form of industry. His queries will take the line of his own related experiences, and will become tied to them and a part of his experience.

I might cite other instances in which the children have followed leads into the past and into the distant present. There might be a difference of opinion between the class teacher and the rest of us, as to the value of the leads which the children follow, but the general policy of the school is to keep the children in the present, until we know them to have a solid base of related facts to work out from, and to which to bring what they get.

We are not willing to be dominated or have the children dominated by subject-matter. We want them to form strong habits of first-hand research and to use what they find; we want them to discover relationships in concrete matter, so that they will know they exist when they deal with abstract forms, and will have habits of putting them to use; we want them to have a full motor experience because they themselves are motor; and to get and retain what they get, through their bodily perceptions. Subject-matter of the past and the distant present contains fewer opportunities for these than does the environment of the children.

So, the body of information our children have up through seven years of age is largely relative to their own lives in New York City. They have had some experiences which make them cognizant of a past and a distant present as will be seen in our teachers' notes; but our effort is to have them get as much as possible of the here and now.

No one will deny that the information noted in the records of these younger years is history and geography information. With this they go to an eight-year-old program where their experiences lead them back as well as beyond. I do not know whether they will know the capitals of the States, and perhaps they will not know the States composing the Union, but I am willing to say that I should many times over rather leave that to chance than such things as our dependence on the iron industry, or the coal industry, or the interrelations and dependence of any part of trade and industry to all other parts. These are facts which young children can deal with if related to their experiences, and that need not be put off until High School age. Indeed, they are strengthened by such facts constantly built upon and added to, and thereby better prepared for High School work. On the other hand, the emphasis placed upon the tool side of geography and history in the formal school defeats its own purpose. When we are possessed of names and locations, we still have

not begun the study of either of these subjects. Many children never get beyond and most of them drop what they obtain of these tools as soon as the school need is passed. And then what of the essence of these subjects?

The subject-matter of a curriculum is what is presented to the children, but knowledge is quite a different matter. The latter is what the children get of this subject-matter—what becomes a part of them. There is no such thing as knowledge unrelated to experience. One can be informed about other people's experiences, but unless one has something of one's own to relate this to, and test it by, it is not knowledge and has little value to the individual. In building a body of what the schools call "general information" unrelated to the children's experiences, they build of straw. The facts may be related, but of what value are they if the child does not know their relation, if he has not tested them through the fire of his experience?

I do not wish to leave the discussion of general information without claiming for our children a very large body of it. They are full of inquiry and interest in everything about them. They are at an early age aware that behind every fact lies another one equally interesting. A child is bored by the movies, for example, until the performance is over, when she disappears and is found in the

dark of the stage behind the curtain trying to find out where the performers are. Another at four wants to know why, when you look through a small hole, you can see a big building? And yet another observes that he knows by the light in a companion's eye that the latter will "do something to him when he gets him away from the teachers." With such habits of observation and inquiry established, books become of just as great significance to them as their need requires. This method lies dormant in all individuals. Why do we so persistently stifle it and divert it? Surely we prize it!

If our records do not show how thoroughly we try to make art opportunities for the children, it is not because the opportunities are not there. The rooms are a better record of them perhaps. By those who are not interested in art, our embryonic art in songs, pictures, language, and plastic forms is often tolerated because "it makes little difference what one does with young children"; or it is irritating to them because "children should be doing things of more importance." But there are many who are glad to see art treated as an important part of a general education and placed side by side with science, who join with us in revolt against the domination of

the formal schools by the Puritanism which has excluded the cultivating of æsthetics.

We are at variance in our method with some of those who are sympathetic in revolt, for we do not "let the children alone" so completely as others believe in doing. We see the spirit of art as the spirit of play, as well as a thing in itself, and we give play great opportunity as a preparation for art; we see the factual element of art in the first-hand experiences and observation of the children, and make unlimited opportunities for them to experience and observe; we see art and imagination as irreducible, and we see technique as the result of hard work with materials. Attention to these fundamentals while the children are still very young may or may not breed artists. But it will at least keep the minds open and perhaps contribute to the greatest art of all—the art of living.

Play by most educational people is thought of as something to go through with and get out of one's system. They are apt to tolerate it in the very young and pray for deliverance from its effect at an early period; or they use it as a period for getting over good habits of what later will be called work. The latter turns out fairly well for the children as long as they are children. The query is raised, however, Is there nothing intrinsic in play worthy to be preserved to the race? If

there is, what should be our attitude towards it? Should it be one of converting play habits into work ones and making little provision for it further? Surely, there is something in the spirit of play worth carrying into our every-day life; the ability to get over our ideas in playful form, the use of language, paints or pencils, building materials, the voice or musical instruments, in the same spirit in which we use tennis racquets, balls and bats—play, or the spirit which makes art possible.

I remember how one of our parents who had listened to a public school music lesson characterized it as contrasted to the spirit of music. She said the spirit of it was expressed in the words, "Sing, damn you, sing!" I doubt if this is an exaggeration though there are exceptions. Music must move along through the play spirit. A six-year-old child just becoming conscious of himself can hardly be introduced to music without increasing his self-consciousness. If he cannot recognize music time as play time—a play time with a new kind of plaything—he should be let alone until he can.

Our school cannot quite face having music left out of children's lives; so, in order to get children to understand it as a play opportunity, we both encourage music elements in their other play, and show them how to play with the elements irre-

spective of other types of play. Just so far as we have succeeded in getting the little children to play with rhythm, with tone and pitch through such toys as voice and body and simple musical instruments, just so far have we succeeded with music; the technique is then quite a simple matter.

Our experimentation with drawing has led us to believe that children manage their own technique in this much better if they are let alone. The test is whether they continue their interest and whether they progress by our let-alone method. We believe they do, but we have had no systematic study made of our drawings from the standpoint of artistic merit. We try to get the children to play with language and plastic art elements in much this same way.

The first-hand experiences of the children such as are provided for in the school procedure, contain the factual elements necessary to art. Vivid auditory and perceptive images come from vivid experiences. The children who reconstruct their environment in blocks, who observe most keenly on trips, who know their facts, possess an element essential to art production. The kind of fact may determine the kind of art, or the kind of instrument which has first caught a child's attention may determine the kind of fact which he will see or hear. Facts of form and color and a set of crayons work together as play material; songs,

and street, ocean and country sound facts, together with the voice and musical instruments combine for play with music; facts of architecture as well as those of steamships and railroads make a good combination with blocks.

Imagination seems to me to be no more or less in its commoner form than experiencing and anticipating relationships; and in its rarer form bringing together new or fundamental unities. The person who is making a cabinet goes ahead from one step to the next. He sees the operations in their relation. So, too, children in block building and other forms of play are imaging when they see what comes next in construction; when they see the next step in its relation to the preceding ones.

The three- and four-year-olds place their blocks in meaningful relations. Sometimes they are information relations and sometimes they come out as pure design. We have frequent expressions of rhythm where children sit on the floor and place one block on one side and balance it by one on the other and produce structures which contain many blocks with never a deviation from the rhythm. At five the children begin to plan their immediate futures and to carry them out as groups and as individuals.

Many can scarcely believe these opportunities to be important in the development of imagina-

tion, because they are so common and in most cases seem to lead nowhere. Every ditch digger is cultivating his imagination seemingly. But what constitutes opportunity for children does not mean opportunity for an adult. The ditch digger's opportunity passed him by somewhere in his childhood, when this kind of imagination (the imagination referred to as the type common to all of us) was interrupted and died out for lack of opportunity, or was wet blanketed by a course of dictation. This is where imagination went wrong.

Imagination gets its greatest opportunity in play, including play with ideas; thought runs ahead and back again and establishes relations. Provided it deals with reality, this kind of imagination is basic in the development of the rarer kind. The little boy, referred to elsewhere, who asked his teacher to listen to the waves against the side of his boat, gave the characteristic of boat in relationship and showed evidences of the rare type of imagination. Boat and water; there is nothing more fundamental in boat. The model ship which stood during the War in Union Square was not so much of a boat as John's flat piece of wood; unless perchance, someone leaned up against it and heard the lapping of the waves! This would be relating one reality to another.

I was once in the position of wanting some toys drawn. I asked all my artist friends for a person

who could draw animals. I said to one of them in my ignorance, "You know I'm not so particular about form because they are to be cut from wood and should be crude, but what I want is the characteristic of the animal. Each has something about it which makes it more a cat than anything else, or more a cow. It's that characteristic which I want brought out!" My friend looked at me with a mixture of amusement and surprise in her face and finally asked me if I really did not know that I was asking for the rarest ability in the world; that seeing fundamental qualities in form and color and bringing them out in their relationships was art in its highest form.

Imagination is potential in all of us. It is not a quality of mind which is peculiar to some. Like everything else it feeds upon opportunity. Imagination cannot be taught; it cannot live in a dictated atmosphere. What quality of mind does dictation serve that makes it so important that it dominates our educational institutions? To be sure, it shortcuts the subject matter processes which are the aim of the institutions. And I hear some one say, "You don't think children should discount what the race has learned and go through all the experiences our ancestors did, do you?" No, I don't. Furthermore, I do not think this question has anything to do with whether or not children should have opportunity to establish

themselves in their environmental conditions, and make the most of them for the benefit of their own development. There are other ways than by dictation, to give children the benefit of race development.

Imagining is a mode of discovery. A person stands upon related facts and plays with the fringe of possible further related facts and rejects or brings these new ones into relation. Whether this be applied to materials, or whether it operate in abstract reasoning, it is imagination which plays the fundamental part in adding the new facts to the old. This ability we recognize as superseding the mere knowledge of the past in importance. Indeed, of what value is a knowledge of the past without imagination to see its meaning in relation to the present? To get imagination operating to its fullest extent in individuals is one of the great problems of education. I think our records show new and greater possibilities along this line than most other school procedure does. As I study the records, they present themselves to me as a flow of activities from which spring more or less important imaginative happenings. Sometimes the rare type comes out at five as in the case instanced. Sometimes it comes out later and occasionally earlier. But these occurrences are not so important, both because they may be accidents, and because an extremely pronounced

quality, if it is not accidental, is likely to find its own expression even under adverse circumstances. But the point of importance is whether such opportunity as we are offering is an imagining opportunity; whether the children stand a chance of coming through with the rarer type of imagination.

The developing process is a step by step, or if one like it better in discussing imagination, a leap by leap, from where the child is found to be. The beginnings of imagining are when the child through experiencing becomes conscious of a train of relationship from one thing to others; he next becomes conscious of a train of relationships leading out from himself. There is the possibility that these conscious relationships may lead up a blind alley. If the child has been fortunate enough to get started on something which he can convert to his purposes, his future is assured. Children while they are still young can convert only materials to their purposes. There is nothing more prominent in our records than the way the children seize upon imagination opportunities.

I am tempted to answer here the accusation which has frequently been made against us—that we center the children in the present and thereby cut off their chances to develop imagination—by challenging the definition which excludes the possibilities for imagining in the here and now. The

existence of an Einstein controverts this sufficiently for most of us. It leaves us still with the poetic type of imagination unaccounted for. But here as well, the quality of poetry is dependent upon the vividness of impressions which have been made upon the instrument. Is not a poet a highly sensitized individual upon whom the facts of life make deep impressions? These impressions are analyzed and their parts brought together to make new forms. He differs from a great scientist in the kind of fact he has by chance become interested in, as well as in the material he expresses himself through.

It is not my purpose, however, to discuss art except as it may be indicated in embryonic art of children. The other element in embryonic art as I, arbitrarily, have analyzed it, is technique. School people disagree radically in their treatment of technique. I have shown in another place how often it is isolated from its legitimate subject-matter and analyzed according to the degree of difficulty and built into a system. The assumption, in the application of a system of training in technique to young children, is that all but one part of the moving organism can be shut off and a drive forced along that one path. There is plenty of proof in the overt movements of the children of our formal schools, that this can be done. They move almost in the lock-step of the army to one

motive. What happens to the whole while the one part is being forced is, however, a recent and insistent question. The modern school offers opportunity in technique along with other opportunities, and doubts the validity of the isolated, sequential, easy-to-difficult method. It has set up the hypothesis that the gaining of technique is compatible with the acquisition of subject matter; that the desire to gain both of these is compatible with the acquisition of each; and that all of these are parts of one whole and may be treated as such.

There is little doubt that certain periods of development suffer more intrinsically from what we term a training method than others. Very young children, let us say up to six, seven, and eight, during which years a change in interests takes place, cannot stand up under it. They lose the play spirit and become more or less automatons. During the transition period of six, seven, and eight, less harm is done by the training method to those children who are secure in their play spirit. After the transition they are apt, not only to submit to training, but to put themselves through their own courses of training when they have technical difficulties. The key to the problem of when specific training may be suggested, lies in whether or not the individual child or student can see its purpose, and can hold to what he sees. But waiting for this time does not mean that the gaining of techniques

is being put off. Children with strong motor drives, with keen desires, with information, brought together with suitable materials, are getting degrees of technique in many directions; besides this, they are gaining a force and purpose which will send them far along in gaining specific techniques, when they see the necessity for them. The most outstanding proof of this is the way in which children learn to walk.

It is easy to see the children doing pretty much as they please and at the same time being purposeful, when they are using the materials of our classrooms. It is not difficult to understand that the children are not dominated by us in their use of the plastic materials (including drawing materials) and that they are at the same time gaining in technique. Our method in music, however, seems to most people to be a teaching system. I am not sure whether it is or not, but I am interested in explaining it so far as I see it as consistent with our other procedure.

The voice in singing as well as in speaking is a human instrument capable of a high degree of cultivation. The speaking voice operates early because of its use quality. But the singing voice is left largely to chance. There is little motivation behind the singing voice except in rare instances. To singing, also, there is attached a self-consciousness which checks its use, especially, I think, in America. The voice, as used to sing simple songs,

is comparable, as a tool in music, to the voice in the use of sentences and words in language. But songs have to be taught the children. They must sense or experience rhythm and pitch and whatever goes to make up music, before they can compose in the way they compose with language and materials of plastic art and wood tools. Because of the belatedness of the children in securing their musical elements, the composing also is belated. If it is allowable to call composition in the elements of music such as rhythm and pitch, "composition," individual children are producing such composition all of the time. They move to rhythm of their own making and imitate sounds. However I see little composition in music which is comparable to composition in pictures, which are produced without instruction of any sort whatever.

There are other music tools besides the voice—many musical instruments. We use these for the children's experimentation. That much of this has to be done in groups seems to be forcing the children into group performance. However, there is so little of this in any other direction in the school, and the play spirit is so dominant in our music lessons, that we have little apprehension for the results. Furthermore, we are seeing ways of extending opportunities for individual experimentation with the instruments.

For the musician, the plastic artist, interested

in making professional artists, I admit we have not touched the subject of art. Neither do we make cabinet makers nor engineers of any description. What we want to do is to pave the way for the development of different types of art; to help, not to hinder the embryonic artist. We wish to provide opportunity for the children to keep up to their age level in techniques of different types, and to preserve the warmth of desire towards accomplishment, so that when the time comes to develop special techniques the strength to put them through will be there.

Our treatment of these so-called "subjects" is our answer to the argument that schools which have been termed "free" have no organization, and that children are exposed to haphazard methods. The difference between our organization and others is, that we have not made a paper curriculum first and then held ourselves to it. What organization we have has followed experience. We have found that orientation can be begun at three, that at four the children can begin to understand direction and can orient themselves in certain spaces, at five they can extend that orientation, and at six they can begin to extend that orientation beyond their motor experiences. Our organization of these specific findings has been to

see that the new teachers are aware of what may be expected of their special age group, and to bend their efforts towards having each child come through with the degree of orientation he is equal to. It is in this way that we are building our organization. We have made but a beginning and our efforts are largely confined to curriculum, but we begin to see the possibility of just such organized effort for the study of individual children as well.

With a forward look towards future programs and a backward look as well, we are likely sometime to come through with a curriculum as a whole for children from three to twelve or thirteen. The word curriculum should not be interpreted to mean a rigid program. Far from this, we are merely adding a degree of formulation to what, in our experience, we find to be true of children at different ages or degrees of development, in order, primarily that we may make further discoveries. We have made but a beginning and any formulation we make is open to discussion and future repudiation. We are publishing our programs for one distinct reason—to get discussion of our procedure, based upon what is actually happening.

How to secure the possibility for creative opportunity for teachers and children is the fundamental question with such a school as ours, and

the above description of our procedure together with our records, reflects I hope, the existence of such possibilities for both teachers and children.

I recognize that the first question that arises is, "What is a creative opportunity?" And there are as many answers as there are people who would undertake to answer it at all. Records alone cannot answer the question. However, I do believe that our records, taken together with the observation of the children and teachers of our school, explain what we, at least, mean by it. Leaving the question of creative opportunity for teachers, for the present, no one can observe the children working their way through the experiences described, without realizing that they are departing from the dictative, the imitative, and striking out into new and interesting trails of their own. Besides this, they are beginning to become adult in their ability to concentrate, to initiate, to beautify their surroundings, to adjust their relationships. The results can be seen by a keen observer of realities. The records should serve as a key to those who are observing, not as a proof of results.

And as I say this, I remember Miss Wright has included some achievement tests in her record to prove the results of her teaching of reading. To me these tests prove Miss Wright's ability to train these youngsters in the specific things they

will have to know in carrying out a future program. But they have little to do with the education of the children. Again we have Dr. Dewey to thank when he answered the ever recurrent question, "But, do not the children have to be trained?" "Yes," he admitted, "but training has nothing to do with education." A person is trained by another, but he educates himself. If we could once get that idea into the consciousness of our parenthood and our teacherhood, the revolution in our school procedure would be immediate. We throw the monkey-wrench into the mechanics of our own conception of ourselves—of the human race—when we continue to treat our own progeny in the way we treat the animal life which we consider inferior to us. Our hope for the future of our race lies in the children's ability not merely to equal us, but to surpass us. It is our individual egotism that keeps us from seeing the logical outcome of training children to follow in our own footsteps. A long-range view of this sees the human race up a blind alley. We are unconsciously relying on accident to escape from the results of our training methods.

In the experience of most of us there is no class that has achieved creative satisfaction to the degree that artists have. They, more than any of us, have demonstrated that they conceive the means of living as not worth working for unless

they get satisfaction from their work. They have lived like rats in garrets in order that they might obtain satisfaction in working. They are no more articulate in explaining what it is they are after than are the rest of us, but they have succeeded in turning attention to themselves as operating, as a class, on a different principle from the rest of the world and have at least aroused the curiosity of the world about themselves. Many of them seem to achieve satisfaction in their work.

We are told that but for the need of food, shelter, and clothing, the human race would die out for lack of motivating. I wonder if it would. I wonder if the need for shelter, clothing and food motivates us as much as we think it does. It seems as if life, having come into being, will not face death. That life is sufficient unto itself. It needs no other motivation than living until death overtakes it. Biologically, the desire to obtain the means to live has developed along with life itself in its different forms. It is an accident that we have developed commercially so far as we have—that the mass of human beings have only food, clothing, and shelter opportunities; that anything else which goes to constitute life in the fuller sense is enjoyed vicariously. We have not consciously taken hold of our affairs and organized our efforts towards securing the satisfaction we are all trying to get; we have not begun to place

how to live on a footing with securing the means to live. Those who are working most strenuously for the means to live will admit that they want to get to a place where they can feel secure so that they may "enjoy life." Enjoying life means to them enjoying other people's productions in all forms of art, games, out-of-door life, travel. It means vicarious living. They have produced on a low level. It has given them no satisfaction. They have little conception of living through producing stages which lead to an enjoyment in their own productions in poetry, the plastic arts, in material creations, games. They have little conception of creative experience.

In our school programs, having displaced the training idea along with the "big stick," we still have not found it necessary to promise rewards in order to motivate the children. In fact, we are pretty sure that if the children are sent to us early enough, we can establish the habit of being motivated from within; of having purposes and being able to stick to them, to work through them. Sometime, if we remain long enough in existence, our whole school with its records will furnish the data for proof that such habits can be established for every individual child. It is already proved to those of us who have had experience with the youngest children, though we have no convincing records of it. To work upon tests of individual

capacity seems to us beside the point until we have established a principle of motivation. Many teachers are sure this can be done. This principle of motivation is, to me, what the new education stands or falls by. It stands us in good stead that the children seem to have entered the world with a certain physical set-up which demands opportunity for play and work—and that they accept the opportunity. Our opponents characterize the opportunity as one "to do as one pleases," but we think it is opportunity to produce; to produce not because one merely remembers, not because one is told to, but because *all* one's faculties are primed for work. What one produces under such circumstances is to a degree creative; to what degree is a matter of opinion, but I am sure that its essential characteristic is a motivation from within.

RECORD OF GROUP SEVEN
1922-1923

ORGANIZATION OF THE RECORD

The group records of the City and Country School are an attempt to reproduce an experimental curriculum as it develops from month to month in a given year, under the conditions of the school environment. Children and teacher together create the material for the record; the writing of it is the work of the teacher. Rough notes, taken in the classroom, are written up after school hours, then summarized and typed at the end of weekly or monthly periods.

The summarizing is done under general headings that reflect the school's plan for curriculum organization. The first of these, *Play Experiences,* and the second, *Practical Experiences,* are basic in the program. Under them are recorded the functioning of the children, whether as a group or as individuals. The play experiences are expansive, allowing opportunities for children's reorganization of their own environment, while the practical experiences are organized for the production of things. Under the third heading, *Special Training,* are included the experiences directed toward certain ends and the acquisition of special techniques. The fourth heading, *Or-*

ganization of Information, includes also the reaching out for new informational material.

By means of these headings the teacher is assisted in checking up the class experiences, and the reader is enabled more easily to follow the intentional program. The subheads make it possible to select from the general record those paragraphs yielding information as to development and experiences along more narrowly specific lines. Thus the month-to-month sections headed *Language, Cooking, Reading,* if considered separately and consecutively, will be found to present each a connected story fairly complete in itself.

I. Play Experiences
- The Play City
- Play with big materials
  - Outdoors
  - Indoors
- Organized Games
- Drawing and Painting

II. Practical Experiences
- Shop, Sewing
- Cooking, Clay

III. Special Training
- Reading
- Language
- Spelling
- Writing
- Number

IV. Organization of Information
- Discussions
- Trips
- Orientation
- Stories--Dramatizations
- Science

OCTOBER

I. Play Experiences

The Play City

The children were told the first day of school that the River Yard was theirs and that they could build a city in it if they wished. This proposal was greeted with enthusiasm. A lively discussion followed of the different kinds of buildings a city needs. Various buildings of New York City were mentioned. I said, "Shall we build New York City?" All of the children answered, "Yes." "Then what shall we call the river in the yard?" "That can be the Hudson River." "And what shall we call the land on the other side of the river?" "That is New Jersey." Then Roger said, "I'll make a schoolhouse." Sarah chose a butcher shop, Dorothy a hotel, Grace a theater, Helen a little house out in the country, Jenny a post-office, and Mary a library. Gordon said, "Well, I'll make a farm outside the city." They began to talk about the things they hoped the children who were not there would decide to make because the City would need them too—stations, docks, apartment houses, stores, office buildings. Ruth said, "Why, the lawyers

would have to go out and sit in the streets if there were no office buildings."

Later the other group of Sevens[1] was invited to help in building the City. They chose to make the terminal stations, the Woolworth Building, Cushman's Bakery, the Piggly Wiggly Grocery Store, a theater, and some apartment houses. Some of our own group, on entering late, chose mills, factories, and garages to build.

Play With Big Materials

OUTDOORS

Every one in the group climbs the six-foot ladder and goes down the slide in all sorts of positions with the greatest freedom and ease. Sitting, careless of which way they face, or lying down, head first or feet first, two or three coupled together making a train, they slide down. Roger and Jenny jump down easily on to the pebbles below from the platform at the top of the slide. Most of the group swing by their knees from the horizontal ladder and the horizontal bars, and several can "skin the cat." They do this also up in the gymnasium holding on to the rings. Some of them work very hard at the knotted swinging rope which is attached to a horizontal bar, about six feet high. To get hold of the rope they climb up a pole, then out on to the horizontal bar. Dorothy

[1] Group VII B. (See Appendix B.)

was fearful at first, but practiced time after time and day after day of her own accord, asking me to stand close by at first. She worked until she did it very easily. Sarah worked in much the same way.

A great deal of dramatic play goes on all of the time necessitating building with the packing boxes, yard blocks,[1] and pieces of wood. Ernest Thompson Seton's *Biography of a Grizzly,* which I have been reading aloud, has been the inspiration of much of the play. As Ruth and Julia would not enter into this, I suggested to Ruth, who was making a hardware store in the shop for the Play City, that she and Julia might play store with the yard blocks. They immediately set to work with them to make the hardware store. Then a family, with Helen as its mother, who had built a house near the hardware store, began buying supplies from the store, using pebbles for money. I was the only one interested in getting my exact change from Ruth, who gave it to me correctly.

The bear dramatizations were becoming noisy and rather rough, so one day toward the end of the month, just before we went out to play, I said we would not play bears any more, but would play some of the things we were planning for the City Yard. This idea was approved and dramatiza-

[1] Hollow blocks specially constructed for lightness and strength. Two sizes are used, the unit block 6″ x 12″ x 24″ and the half unit block, 6″ x 12″ x 12″.

tions continued day after day, of activities that were being discussed and planned for the Play City.

Organized Games

Occasionally we went into the large yard for running games. We played such simple ones as "Red Rover," "Three Deep," "Birdies." The boys were more eager for these games than the girls, with the exception of Jenny and Grace, who are very good runners.

Drawing and Painting

As soon as the *Biography of a Grizzly* was started, Douglas, Walter, and Gordon began drawing pictures of grizzlies and hunters up in the mountains. Douglas and Walter display unusual skill in drawing animals. They, with Gordon and Roger, devote most of their free periods to drawing and painting. Boats, docks, and elevated roads are drawn continually by all of the boys and occasionally attempted by the girls. Jenny, Sarah and Ruth have a great fondness for the drawing of houses, trees, and gardens with flowers and birds and butterflies. They do not have very high standards of work. Helen, who is starting her first year in this school, works carefully on little set paintings of grape-vines and trees which she has been taught to make. When I asked for

some pictures of our trip to the Gansevoort Market, most of the children drew something they had seen there—the open markets, the chickens or beef hanging up, the freight cars or trucks, our class walking there. Julia and Ruth dictated little stories of the trip at home and illustrated them, and brought them to school.

II. Practical Experiences

Shop

As soon as a child had made a drawing of the building he had chosen to make for the City and had estimated with a yardstick the measurements for it, he was allowed to go over to the shop and start work. Several trips to near-by groceries were made before we had enough boxes for every one to begin building.

Notes by Mr. Reber

HABITS OF WORK IN SHOP

Julia—works independently, but uses poor judgment. Pounds on sides of box without proper support, cracks wood, then has to start over again, so her work is going slowly. She always works cheerfully and alone, seldom asking for any help or counsel.

Ruth—persevering and independent, rather low standards of work, content with uneven trimmings for windows, for instance, straightens them

only upon my insistence. She has very positive and clear ideas on what she wants to make for her hardware store, just where the shelves must be, and where the door and windows.

Helen—her country house is admired by everyone for its wide front porch and pillars, its attractive windows and swinging door. She works steadily and well, although she has a difficult time driving nails in straight.

Grace—her theater with its stage, auditorium, and stairway shows skill and good workmanship. She has had help in planning and in making the stairway. She would have been content to stop with the stage, being anxious to get to the painting of it, and she needed encouragement and suggestions before she was ready to continue. She rejected my suggestions of very simple ways of making chairs and tables, and followed her more complicated ones with no assistance.

Francis—split the wood in his box and is starting again with another box. He has made a very nice arched doorway with the jig-saw. He is a capable worker, but easily distracted.

Walter, Roger, and *Douglas*—after starting respectively a mill, a schoolhouse, and a factory, and working awhile at them had such good reasons for stopping temporarily—lack of material or need of finding out more about how such buildings looked—that they were allowed to begin their

boats for the river, which they were anxious to do. Douglas finished a very good boat and came back to work on his factory with a will. He is doing a good piece of work; has made some round windows with a little help from me. Roger is working very intelligently on his ferry-boat, constructing a derrick and paddle-wheel. He said he made paddle-wheels from one piece of wood in the country, after watching the boats, but he likes this one better which he has been shown how to make of two fitted pieces of wood. It operates with a rubber. Walter's boat is going slowly. He is too much interested in the other schemes around him.

Dorothy—works easily, has good ability and confidence, decides on window-boxes, or balconies with railings, and has little difficulty in executing her ideas. However, she is careless and could do better work.

Sarah—works at her butcher shop independently and carefully.

Gordon—has a poor technique, partly due to lack of care and thought.

Mary—is a conscientious, careful, independent worker.

Jenny—works rapidly, but with no great care or thought.

The following are some rules that grew out of

work in shop and which the Sevens agreed they were able to work by:

1. Any nail pounded in crooked must be pulled out immediately.
2. In nailing one piece of wood on to another, nails must be started first in piece of wood to be nailed on, then the two pieces nailed together.
3. Lines must be drawn with the use of tri-square.
4. Any sawing must be preceded by drawing of line, indicating the place to be sawed.
5. Object to be pounded must be well supported underneath in order to prevent the wood from splitting.

Sewing

The class had made cooking aprons the year before, so I had not planned on making aprons this year, but Helen had no cooking apron and wished to make one. Dorothy had hers left over from last year, but wanted a different kind. Mary had one at home, but chose to make a new one. Finally nearly every child was sewing away at an apron. After each had cut a pattern from a newspaper (one or two with help from me), I helped them lay it on a double fold of muslin and showed how to pin and cut it. Different colored yarns were chosen for the sewing of the hems and the straps. Gordon and Walter had so much difficulty getting theirs sewed, on account of

their yarn getting tangled and their stitches continually running off the hem, that they grew weary of it and were very grateful to me for helping them out. Neither of them thought of giving up, however, for Miss Hannum had said no one could come to another cooking class without an apron.

Cooking

The preserving of food for winter in connection with our study of the City's food supply has been the basis for this month's work in cooking. It is a continuation of work started last year by the group.

Cooking Notes by Miss Hannum

1. CANNING PEACHES

The group worked as a unit in preparing quart jars of peaches for the children's lunch room. These will be used during the winter.

In the discussion which preceded the canning, different children contributed the following points:

1. 1 cup of sugar is needed for a quart of peaches.
2. Boiling water poured on peaches loosens the skins so that they pare more easily.
3. Jars must be sterilized (the reason why was also explained). Many of the class did not

know that rubber rings were necessary, but after a child had poured water into one jar with a ring and into another without a ring, and had sealed and inverted both, the class readily concluded that rubber rings made jars airtight.

4. It takes about fourteen or fifteen peaches to fill a quart jar.

After paring the peaches the children cut them in halves, covered them with the sugar and added one-half cup of water. When the peaches had cooked until they began to soften, the halves were packed in the sterilized hot jars, boiling syrup was poured over, and the jars sealed.

2. CANNING PEACHES—*continued*

This was a review of the above lesson with this difference—that each child cooked some peaches by himself, furnished his own one-quarter-pint fruit jar, and took his finished product home. During the discussion in this lesson the children had in front of them a quart jar, pint jars, and one-half-pint jars. They were able to deduce from the fact demonstrated in the previous lesson, that one quart of peaches requires one cup of sugar, that a pint would take one-half as much, which would be one-half cup of sugar, and that one-half pint would take only one-half of one-half cup, which would be one-quarter cup.

III. Special Training

Reading

SIGNS AND LABELS

The first day of school, the children found their tables, chairs, drinking cups, cupboards, and places for hats and coats, labeled with their printed names. Many of them recognized and could read their own and the names of other children, as these things had all been labeled in previous years at school. And, in addition, last year they had marked the attendance each morning on a large card which contained the class names, the days of the week and the month.

Some incidental reading came about from the interest in the names of streets and signs we saw on our trips. Every one grew to recognize "Ave." and "St." and to use them in making drawings of trips. During "Safety Week" when signs of "Don't Get Hurt" were posted everywhere about, I printed the sign and put it up in the schoolroom. These words were added also to the drills with words and phrases.

A Superior Price and Sign Marker in the room came to be used almost constantly in free periods. Names, signs, and short stories were printed and taken home afterwards. Sometimes labels were put on drawings this way.

The typewriter which we share with the other group of Sevens was also used, but by a smaller group of children.

THE CLASS NEWSPAPER

The reading for the first month has been almost entirely from the class newspaper which was printed by the Tens and sold to us at 25 cents a paper.

A Price and Sign Marker was used in printing it. We received one paper with a few short extras every week. This paper was thumb-tacked on a large bulletin board. The day and date were changed each morning, at first by me, but very soon by some child who came in early enough to do it.

The first newspaper, as it had in it the names of the children who were in school the first week, and as it introduced day by day the names of the days of the week, contained some matter already partly familiar to the group. It was first read to the class by Helen and Sarah, who had learned to read in other schools. It was soon easily read by all the group, and most of the new words and phrases were recognized after we had had games, races, and drills with word cards. Half an hour each day has been given to reading. There has been great interest in learning to read from the first, and as the reading has all been connected with the activities of the group, there has been eager discussion along with it. When the question, "Where will the City people get food?" came to be read, Gordon burst out with, "Oh, that's all right, my farm will send the food to the people." Sarah

said, "I'll buy his meat for my butcher shop and then sell it." Sometimes from the discussion that accompanied and followed one newspaper, I made up the news for the next. The news was, for the most part, about the building of the City in the yard.

Some of the extras were: "We have cooking today," "Mr. Meister comes today," "Today we are going on a trip."

NEWSPAPERS FOR THE FIRST MONTH

City and Country School.
Tuesday, October 10, 1922.
Good morning, girls.
Good morning, boys.
Is Mary here?
Is Sarah here?
Is Dorothy here?
Is Jenny here?
Is Roger here?
Is Grace here?
Sarah is making a butcher shop.
Roger is making a schoolhouse.
Jenny is making a post-office.
Dorothy is making a hotel.
Grace is making a theater.
Douglas has a boat.
Mary has a library.
Francis has a boat.
Helen has a house.

Walter has a factory.
Ruth has a hardware store.
Julia has a restaurant.
Gordon is making a garage.
Dorothy's house has a porch.
The butcher shop has a table.
It will be fun to play in the City.
Where will the City people get food?
Where will the people in the City play?

PICTURE BOOKS

The books on the tables and shelves, such as Lear's *Nonsense Rhymes,* Caldecott's *Mother Goose, Peter Rabbit, Little Black Sambo, Fairy Tale of a Fox, A Dog and a Magpie, Johnny Crow's Garden,* E. Boyd Smith's *The Railroad Book* and *The Farmer,* were eagerly opened and enjoyed by all the children during a "quiet hour," or in intervals of other work. Frequent requests of "Teach me to read," were made by different children coming to me with books open. Small groups gathered as I read the requested story. When anything familiar, such as *Mother Goose* or a rhyme from Lear's *Nonsense Book* was read, every one would join in with the reading.

Language

After the Gansevoort Market trip, I showed the children a loose-leaf album I had brought to school and said they could have it to file away,

stories of their trips or any other stories they wished to write. They were ready immediately to compose the story of our first trip to Gansevoort Market. One child after another contributed. The only attempt I made to help was to ask what the boat took back to Texas when it left the New York docks. Some of the children were much more ready than others, and Julia would have made no contribution at all if I had not given her an opportunity several times. After the Gansevoort Market story had been typewritten in the office and added to our stories and verse, Helen and Sarah read it to the group of Seven B's, who received it with great approval. Their account of the same trip was then read to us with equal appreciation from us.

THE TRIP TO THE GANSEVOORT MARKET

(Group Dictation)

Once upon a time the Sevens went to the Gansevoort Market. We saw chickens, and white rabbits, and some little baby pigs. And we saw a turkey. Then we nearly all of us got weighed on the scales that they had to weigh the animals on. And we saw some squabs and some ducks in crates. They had some long tin dishes outside of the crates and they were eating out of them. "Quack, quack, cock-a-doodle-doo, ugh, ugh, ouk, ouk, wee wee, wee wee, peep, peep, peep, gobble, gobble."

Then we went out on the docks. We saw a fire-

boat and some tugs. And then we saw trucks unloading nails, tar paper, bags of concrete, barrels of sweet potatoes, boxes of tuna fish, boxes of pork. These were going up the river to Peekskill on a boat that came in at twelve o'clock.

Then we went out on a big Southern Pacific dock and saw bales of cotton piled up. We saw bales of copper wire. We saw a big steamer coming in. The name of it was *Le Valle.* It had come up from Texas. It took five days to come. It had brought bags of chick peas and bales of estel grass to make rope and cheap brushes, and bundles of cowhides to make shoes, and bags of rice. The man said we would send back things that were already made, such as slate and cloth.

One day Dorothy heard a small group who had come in early discussing swimming with me. She said, "Oh, I'm swimming on my back." I said, "Do you want to write a story about it?" She wanted to, and reeled off the following account of it with only a question or two from me. Walter helped her with the last line when she hesitated.

AT THE SWIMMING POND

(Dictated by Dorothy)

I'm swimming on my back in the water. I feel like I'm lying flat on my bed. Now I'm swimming on my side. I love it so! It's so nice and cool and deep! I duck my head into the water and swim under the water. I paddle up to the rock like a

little swimming fish. I walk up on the rock. I go up so high! Afterwards I get ready to dive. I go right head first down into the water and I swim back again. And I get up on the rock again and I dive down flat on my stomach. Oh! how it felt, like I was going to sink down to the bottom. Then I swam out to the other side to the woods. I went through the fields across the state road, across the bridge up the path into our new little cottage. I felt like I had to have my lunch that minute.

Writing

The children needed to have their names on their shop specifications and boxes, and also on their drawings. All of them could print, and one or two could write his own name. Two or three days after school had started Dorothy asked me to write her name for her. I did so on a sheet of paper. She thumb-tacked it on the board without any suggestion from me and copied it carefully over and over again. Then I told the children who wished to know how to write their names to find places at the board and I would show each one how. Every one went to the board and I set a copy for each except Helen, Sarah and Walter, who were very insistent that they needed no help. Walter wrote his in perfect form but in a cramped way, and Helen and Sarah succeeded only after a fashion. As we continued writing at the board day after day these three came gradually to ac-

cept my criticisms and help. During the lesson there was swinging and writing to a marked rhythm, a verse or a song, or counting. Sometimes, we called it making lace, sometimes winding the clock, sometimes skipping rope. Then from this care-free swinging of the arm for fun came the swinging into such easy patterns as *it, me, ten, at.*

As the group had to order all of its own supplies from the store conducted by the Eights, the need soon developed for the writing of such words as *pencils, paints, paper, crayons, chalk, scissors.* These words were practiced on the board by everybody. Account must also be kept, in a special book, of all of the money spent. A bookkeeper was elected every week for this task. He was of necessity chosen from among the children who were writing with the greatest ease and regularity. All of the writing was done at the board, except when orders for supplies were written or when accounts were posted in the bookkeeper's book. Any writing on paper was on a large scale.

Number

Every day there is counting of attendance, different children choosing to count it by ones, twos, threes, fours, fives, and sixes. There are two periods during the week for number games such as ten pins, lotto, parcheesi, dominoes. Cards

containing the more difficult combinations with their answers, as:

3	4	6
4	5	7
7	9	13

are thumb-tacked on the wall so that a child in getting his score need not stop to count if he does not know the combination, but may get the answer with a glance at the cards. These were not used much at first, but more and more the group is impatient if a child stops to count, and someone is quite apt to touch the card containing the combination and say, "Don't you see, here it is." Often when a child knocked over a certain number of "pins" which happened to be a very familiar part of one of the combinations of 10, as 5, for instance, and called out "5" to be added to his score, the rest of the group would call out, "and five left standing." So I led them to allow each child knocking over blocks to call out not only how many were knocked over, but how many were left standing. I kept score the first two times we played and then Dorothy asked to do it. She turned 2's and 3's around and needed help. After she had kept score once, each child did it for himself with my help. There are still many numbers that are made backwards. During one or two periods we worked on combinations to get more

speed in our games. Small colored blocks were used. Sometimes the children worked together in couples. The one having the first turn, placed on the table two different piles of blocks, as 2 reds and 3 blues, or 4 greens and 4 yellows. The blocks were won by the second child if he was able to say how many blocks were on the table without stopping to count them. It was then his turn to place blocks on the table for the first child to try to win. Short periods of this were enjoyed by the group. Each child also worked by himself with blocks. He started with 5 blocks, putting them together in all the combinations possible, writing each combination on the board as soon as he had put it together with blocks, as:

2	4	5	2
3	1	0	1
—	—	—	2
			—
			5

Combinations up through 10 were worked with in this way.

The class is furnished money by the school office to pay for supplies and trips, so a treasurer is appointed for each week to count out the money for bills received and for the trips taken. This is done in the presence of the group, and often the treasurer receives help from the group. Most of the children are acquainted with the nickel, dime,

quarter, half dollar, and dollar, but are not quick in combining them.

In cooking there is measuring by cupful, ½ cupful, ¾ cupful, pint, ½ pint, tablespoon and teaspoon.

IV. Organization of Information

Discussions

When we went out to nearby groceries to get boxes to start the buildings for the Play City, we talked of the materials used in building most of the houses we saw, and of their flat roofs, and their heights. Later we discussed the difference between city and country houses, and each person told of the kind of house he had lived in in the summer in the country. There were many varieties—log, wood, stone, brick, and even canvas. Jenny told of the log house she had slept in and how she woke up one morning with the rain coming in on her face and saw a squirrel sitting up on a log in the ceiling. I showed some of the National Geographic pictures of houses that other people live in—grass houses in Africa like huge bird's nests, houses in tree tops, bamboo houses, houses set up on posts as protection against snakes and animals, the pueblos of Arizona, Indian wigwams, the palm leaf houses of the Seminole Indians in Florida. Then we took a trip to the Museum of Natural History to see models of different kinds

of primitive shelter, the summer and winter homes of the Eskimos, Indian pueblos, bark wigwams, skin tepees, houses of the lake dwellers of Switzerland. There was immense interest in these different houses and many conjectures as to why certain materials were used and why such and such a style of building. The methods of entrance to the various kinds of shelter brought out some interesting discussions. The ladder by which the small Indian lad was climbing up to the roof of his home, and the drawbridge to one of the lake dweller's homes were remembered and talked over.

There followed discussions of the first people living here on Manhattan, their bark huts and lodges, their supply of sea food, wild animals, and simple garden vegetables, their rude tools and canoes. I told the children how the part of New York known as Greenwich Village used to be called by the Indians, "Sappokanican," meaning tobacco fields. We compared Manhattan as it must have looked then and later when the Dutch people came and established their farms, with the way it looks now. I told how some of our crooked streets were probably old cow-paths and that Broadway was once part of the old post road going to Albany. We compared the food supply of Manhattan of long ago with the present supply which comes from all over the world. We walked

over to the open-air market on Gansevoort Square, where we saw enormous quantities of fruits and vegetables, thousands of crates of live chickens, geese, ducks, squabs, tiny pigs, turkeys, whole beeves, hogs, et cetera. We saw freight cars and trucks bringing things from the docks. Then we went out on one of the Southern Pacific docks at the foot of Twelfth Street where there was much cargo which had been brought from Texas and New Orleans, sacks of rice, chick peas, raisins, hops, bales of cotton, bales of estel grass for making ropes and cheap brushes. We were provided with a guide who was able to answer all of the children's questions. They asked him what the boats carried back to Texas and he said all kinds of manufactured goods, such as cloth and slating for roofs. We saw one of the large boats being unloaded and men going back and forth to the enormous holds with trucks.

Grace brought Carpenter's *How the World is Fed* from home and said she wanted me to read the interesting parts about poultry and about dairying. I read with many interruptions from different members of the group, who were anxious to share their summer experiences on farms with each other. Later, we joined with the other group of Sevens in a discussion of what we had seen on our trip to Gansevoort Market and showed them our pictures of the Market and the docks, and the

maps. Helen read them the group story of the trip and Sarah the rhymes. George, from the other group, told how he had seen cotton growing in Texas during the summer and showed some cotton bolls. The children as a group had intelligent interest and information in regard to where the fruit and vegetables which we saw at the Market came from—from the near-by farms on Long Island and in New Jersey, from California and from Florida, and in regard to the beef from ranches in the West.

Along with the discussion of the food supply of primitive peoples and their methods of cooking and preserving, the group has been doing some preserving and canning of fruits for winter with Miss Hannum. (*See* Cooking.) We had planned also to spend a day at the Palisades, building a bonfire and cooking our dinner in primitive fashion. The children proposed toasting the bacon on sticks over the fire, and promised to bring small hatchets and knives to chop the wood. But on the day planned for the Palisades it rained, and although the small hatchets and knives were brought, and much disappointment ensued, the picnic could not take place. At my proposal, however, we pretended we were having the picnic. At the pretend picnic the children separated to get wood for the fire. Some brought back green wood and some dry. Ruth suggested saving the green

wood to make toasting forks for the bacon, as that would not burn so readily. When it grew time to return home, a storm came up and we decided to spend the night there. Different kinds of shelter were decided upon. Francis dug a cave and put up a rock in front of it. Grass houses, clay houses, huts of bark, skin houses, shelter under bushes, a house of woven grass, a house up in a tree, were all proposed. A log house was at first decided upon by Sarah, but later she said it would have to be a grass house as the log one took too long to make.

Trips

Gansevoort Market and the Twelfth Street docks.

Museum of Natural History.

(*See* Discussions.)

Orientation

After the children had drawn pictures of what they had seen on our trip to Gansevoort Market, I said, "Why doesn't some one make a picture of our whole trip showing how we went to the Market?" Grace was the first to respond and drew a picture of the schoolhouse on Twelfth Street, then the Market on Fourteenth Street, and the docks and boats along the water-front. She showed Seventh and Eighth Avenues crossing Twelfth

Street. She asked me if I would not take her again as she did not remember all of the streets. So we looked some of them up on a map. Several children became interested later and began drawing maps. Jenny drew not only the docks on the West Side and the Hudson River, but some mills over on the East Side, Brooklyn Bridge, and the East River. Dorothy and Julia made maps on which they pasted certain buildings standing up—the schoolhouse and later the Woolworth Tower. Several children drew pictures of the schoolhouse and the streets near by and located their own houses. I had to help Helen as she comes on the subway and did not know which direction her house was from the schoolhouse. She knew the station where she gets off the subway, so we located that on a large city map and then she drew her route home. Francis, after he had made a picture of the schoolhouse, Gansevoort Market, the wide street along the docks, and the Hudson, pasted another paper on and drew the New Jersey coast and then some trees, houses, and vines out in the country.

Stories

The *Biography of a Grizzly,* by Thompson Seton, was listened to eagerly and asked for day after day. I had many pictures of bears and of Yellowstone Park, which I had just visited in the

summer, and these served to heighten the interest. Mrs. Mitchell's story, *Meadowland Farm,* was welcomed by the group as an old friend. Some verses, riddles, and nonsense rhymes, from Skinner's *A Child's Own Book of Verse,* Bk. I, were read, and Stevenson's *From a Railway Carriage* was read one day after the children had been playing train in the yard.

Science

The first time the children met Mr. Meister in the science laboratory they were ready with all sorts of questions and requests for help in building the City. Dorothy and Sarah wanted to know how to make their boats so they would float and not sink (several children had had difficulties with this last year), Mary asked for electric lights for her library, and Jenny for her post-office, Walter for an electric engine for his boat, and Francis asked if he could have electric power with a propeller and rudder. Mr. Meister said they could have electric power for the City from the switchboard in the laboratory and that he would help them to understand how to balance their boats. Then he explained the laboratory and the necessity for care in using the gas, electricity, and any acids in the laboratory. He performed some experiments with acids to show their actions with different substances and what dangers might arise

in using them. He added sulphuric acid to water until the water boiled. He warned against pouring water into acid, because it might sputter up high and burn any one who happened to be close. He explained that a drop of water meeting acid is changed into many hundreds of particles of steam which try to escape, carrying the acid with them, and that in this effort to escape, the mixture might easily boil up into a face bending over it. He put a piece of wood, a copper wire, and some thread in acid and we took it over to the classroom. The copper wire changed to green, making a poisonous brown smoke. We found the next day that part of the wood had been eaten off, the thread was in bits, and the wire had dissolved, while the acid had turned blue.

On another day, Mr. Meister placed an empty bottle in some water. The bottle tipped over. The children said, "Put some water in. Then it will float." He put some water in. Then the bottle floated, but still tipped. Then each child tried floating bottles in the water trough. Some of the bottles floated, but tipped; others turned upside down. Grace said, "My bottle floats with just this amount. It turns over if it doesn't have enough." Then all tried putting in just enough water to make their bottles float without tipping. Mr. Meister said, "Must boats have water in them to make them float?"

Children—"No, they have keels."

Mr. Meister—"Why does the neck of the bottle always tip over unless you get enough water in the bottle?"

Roger—"Not enough weight on bottom, too much on top."

Mr. Meister—"If a small boat like this has great heavy sails, what will happen?"

Children—"It will tip."

Mr. Meister—"A chair like this that stands well has the most weight on the bottom. But if the back were much higher what would happen?"

Children—"It would tip over."

Mr. Meister—"Yes, too much weight at the top. Everything in the world must be built heavier at the bottom. Did you ever notice the Woolworth Building?"

Children—"Bigger at the bottom."

Mr. Meister—"And the Metropolitan Tower is much heavier at the bottom. Look at pictures of the Eiffel Tower, too. Remember then to make your ships heavier at the bottom. How?"

Grace—"Heavier wood."

Dorothy—"A keel."

Mr. Meister placed a bottle with a round bottom on the table. It stood, but when he poured water in up to the neck it tipped over. He said, "You see, it had too much weight on top." He also put nails in to make it heavy enough at the bottom so

that it would stand. He said, "If we were heavier at the top than at the base we would fall right over." Then he picked up Julia and held her up to show how it pulled him over and made it more difficult for him to stand upright. He said, "If the bottom is broad it's easier for things to stand straight." Grace stood with feet close together. Mr. Meister touched her and she almost tipped over. She spread her feet apart. He touched her again and she stood firm. He stuck two files into the bottom of a cork and balanced the cork on the point of a needle stuck into another cork. He said, "Why doesn't it fall over?" The children replied, "It's heavy on the bottom." Then he tried to make it balance with the weight of the files on the top. The class said, "It won't, it's too heavy at the top."

NOVEMBER

I. Play Experiences

The Play City

One day both groups of Sevens took the buildings they are making for the City into the River Yard in order to decide upon the best sites for mills and factories, for stores, libraries, stations, and for apartment houses. Later, at my suggestion, some of the children eagerly brought out their unfinished stores or houses and began playing. Other children cleaned out the cement river bed. After a discussion period in which we talked about the Long Island farmers bringing their trucks over to Manhattan to sell their vegetables, and about which I have told more under "Discussion" and under "Orientation," Jenny, impersonating a farmer, stood her truck on 102nd Street, she said, and the other children came to buy. This continued two or three days. Several of the houses are already inhabited by tiny dolls brought from home. These are put to bed, sent to market, or become ill and the doctor is called in.

Play With Big Materials

OUTDOORS

Play with the yard apparatus has gone on intermittently. With the development of greater interest in dramatic play and in organized games, less time has been given to rope, horizontal bars, and ladder. Dramatic play with the packing boxes and blocks has continued. There have been dramatizations of farm life, of cowboys in the West, of family life and of store.

Organized Games

The simplest form of "Steal Sticks" has become a great favorite. At first Douglas, Walter, and Roger were the most eager for it, but gradually all of the group have come to play it with enthusiasm and with a strict regard for the rules. Ruth was the most confused at first. Now, however, she is by no means the last one to be chosen. Mary and Jenny stand out with the boys mentioned as being the most daring, fastest players. Helen and Sarah have developed a careful game, watching closely. The game of "Birdies" is chosen sometime, too.

Drawing and Painting

With the advent of some new show-card colors, there has come a great interest in painting large pictures. Following the trip to Brooklyn Bridge, several large paintings of the Bridge appeared.

Ruth painted the Bridge and the two high towers which we saw from it. Douglas and Francis drew the Bridge with boats underneath. Walter spends all of the time he can get on careful drawings of boats. In shop, also, he has been interested only in making a boat.

Ruth, Jenny, Helen, and Mary have been painting pictures of the houses they are making for the City. Sometimes at home they draw pictures of these or make a street of houses. The pictures are labeled and often stories about them are printed underneath. The idea may have been suggested by one of the illustrated newspapers on which the Tens had made a picture of Ruth's hardware store.

For one of the assemblies with the other Sevens we had promised to report on the fruit and vegetable supply of New York City. I asked the children if they wanted pictures to illustrate their talks. Nearly every one of them, whether he was going to make a report or not, painted or drew some kind of a picture illustrating the subject. Dorothy painted red bananas growing on a tree. Grace painted orange trees with pickers at work and some boxes half full of oranges. Walter painted many different kinds of vegetables growing on a farm, corn growing very tall with the white silk hanging down, cabbages, carrots, beets. Francis made a picture of a farmhouse with a near-by train going through a tunnel.

Grace practiced on a design for the sign at the top of her theater, and then took it over to the shop and transferred it carefully with oil paints to the theater.

Mr. Zorach met with the group one time in the shop when some of the children were ready to begin painting their houses. They lined them up, making a street of houses, and he asked what colors he should order for them. Grace was for having red and green for her theater, but after Mr. Zorach had said that often a theatre was painted in rather dull colors so that the stage would show up more noticeably, she decided on gray.

II. Practical Experiences

Shop

Interest in building in the shop has been increasing with the steady growth of the houses for the City. Douglas (with the help of Mr. Reber) has put several chimneys, and a tank with a step-ladder, on the top of his factory, and has finished cutting out the large windows and doors. He has painted the factory red and is now putting in white stripes, so that it will have the appearance of being built of bricks. He is one of the steadiest workers in the shop. Helen's country house has two balconies and a roof and she is now getting ready to shingle the roof. After she had had to

stay out several days on account of a cold, she came back very eager to get to her house again. During the entire first month she had great difficulty in pounding nails in straight, but she has told me that "they don't seem to go crooked any more now."

Grace's theater is painted gray and she has asked to dye some curtains for it. She has started a house for the theater people to live in, in the City. Roger has worked steadily at his boat. Jenny is painting her apartment house white, with green trimmings. She wanted a stairway and began making one like Grace's, sawing indentations on a side strip on which to place the steps. But she decided it was too hard, so I proposed steps made much like a step-ladder. She had no difficulty with these, and was satisfied when they were finished and put in the house. Nearly everyone has cut a hole in his second and third floor to leave room for an elevator or stairway. The boys will stay at work for longer periods without much encouragement or help, than will the girls, with the exception of Ruth, who plods steadily along whether she comes to a very difficult piece of hard thick wood to saw, or whether things go easily. Dorothy left her apartment house for a while and made a mail box for our room as we are continually receiving mail from the other groups.

Walter was making so little progress on his

boat that it was evident he was wasting time. So he was told he would be allowed only two days more on the boat, and then he must begin on his City building if he wished to be allowed to play in the City. He agreed that this was just.

At the end of two days, however, he had not finished his boat. But he put it away without a word and started work on his factory.

Cooking—Notes by Miss Hannum

The study of the preservation of foods continued throughout November. The children dug a pit in the City Yard and buried some fruit and vegetables to keep them until the spring.

The following is a list of the fruit products, canned, preserved, or dried by the class:

Plum jelly
Plum butter
Ginger pears
Candied pears
Grape jelly
Peach and apple jam
Cranberry jelly
Dried apples.

A discussion in which methods and proportions were talked over preceded each lesson. The close relationship of the processes of canning and preserving was readily understood. The children found the jelly tests rather difficult, but with the

third lesson the testing was done independently and very satisfactorily. The lesson in which apples were pared and strung for drying aroused no general interest. The class wanted to *cook* something.

Technique is improving. Skill in the use of paring knives has increased greatly. Most of the cooking last year was done individually, but now it is done by groups of two and three. Each group apportions the work to its members. The co-operation demanded in this way has been rather difficult for some of the children. But they are learning to work together better all the time.

They are beginning to lose play interest in the dish-washing and general cleaning at the close of the lesson. This work has lost its fascination which lasted during their year as Sixes. They have, however, formed the routine habits and as a rule their work is thorough.

Clay

Several of the children had asked for clay. Miss Levin said she could take three or four in the pottery room during some of our free periods. Grace, Helen, and Sarah were the first to go. Then Dorothy and Francis and Ruth asked for permission and they were admitted. They are working carefully, Miss Levin reports, most of them on dishes they want for their City houses and stores.

III. Special Training

Reading

The Tens are now sending us illustrated newspapers. This has added to the interest and enthusiasm in reading. One newspaper was decorated with the painting of Ruth's hardware store. The window of the store displayed the shovels and seeds which the newspaper advertised she had for sale. Then at the bottom of the paper was a picture of Gordon sowing seeds out on his farm, for Gordon had said he would buy his tools and seeds from Ruth's hardware store. Another paper was brilliantly illustrative of the way Dorothy's window boxes would look after she had planted the flower seeds she would buy from Ruth's store.

Often a group of children as they come in in the morning, gather around the newspaper and read. It is seldom that I am the one who has to remember to change the day and date. The newspaper is read with steadily increasing facility as there is much repetition of the words and phrases about City things, such as "apartment house," "hotel," "hardware store," "is making," and so forth. With each fresh newspaper there is occasion for drill on the new words and phrases and also on some of the old ones. The game of "Mushpot" has been asked for nearly every day. In this game the children sit in a semicircle in front of the blackboard or bulletin board on which the news-

paper is thumb-tacked. There is a circle called "the mushpot" marked on the floor. Any child not able to read the word or phrase or sentence touched by the teacher has to go into the "mushpot." He can get out only by being able to read more quickly than the child whose turn it happens to be, or to read when some other child is unable to do so. Then that child goes into the "mushpot," and the first one comes out. This game is always played rapidly and for a short period. Keen attention is necessary to guard against being caught in the "mushpot." Roger is the child least interested in learning to read. He is the one whose attention is most apt to wander. "Mushpot" has served to point this fact out to him and to the group, and he is making some slow improvement. Races and games with the words and phrases printed on cards and on the board are part of the drill also.

The Winston Primers were given out at the first of this month, much to the joy of the children. After the first pleasure gained through the mere handling of the books, and through looking at and talking about the pictures, and after I had read one or two stories by request, I said, "Now you may read the Little Red Hen story with me." As the story was quite familiar, every one said it with me, turning over the leaves as I did. At the next lesson I told the story of "The Little Red Hen,"

any one joining in who wished, and as I told it, I held up cards containing certain words or phrases, as I came to them in the story. Gradually, through constant repetition, some of them came to be familiar to the group. Then at the end of the story I used the cards for a drill. We had several lessons with "The Little Red Hen," new flash cards being added each time. During some of the lessons the children formed in groups of two and drilled each other with the cards. Finally, the class read the story to its satisfaction, everybody being able to read a page when called on. Not all the words and phrases were used for drill, but the important ones were, or the ones which occurred over and over.

Then in different free periods one child after another came to me voluntarily and asked to read "The Little Red Hen." One child started the fashion and the rest followed. The next two stories were taken up in the same way. The children were continually asking to take their books home. I asked them if they were willing to wait until they could really read the first two stories. They agreed. The test of the reading was in being able to read all of the word and phrase cards belonging to each story, and then to read the story either to a child or to me, in a satisfactory fashion. Several periods were taken up in this way, little groups working together and com-

ing to me for assistance. Dorothy has used the same method in attacking reading that she did with the swinging rope in the yard. She has been the slowest of the group in learning to read, and has also missed four or five days of school. But she has determination. Here is an instance of it. After I had helped her in working with the word cards one day, two other children came to me and asked if I would let them have a race with the cards. I answered yes, and told Dorothy to go away. But she insisted on remaining, saying she would learn the cards that way. She remained, watching attentively two different groups at work.

The Price and Sign Maker has been used almost constantly. Ruth prints stories with it about her baby brother at home, and Grace and Mary print items about themselves from the newspaper. Sometimes Sarah and Helen have printed words so that the class might have additional word cards for their games. The boys print at different times, too, but are more absorbed in drawing and painting than the girls, so most of their free periods are given to work with crayons or paints.

NOVEMBER NEWSPAPERS

How will people get to the city?
Clang, clang, the people will come on the cars.
Chug, chug, the people will come on the boats.
The food will come from the farmer.

Gordon is going to have a farm in the country.
He will send chickens and beef to Sarah.
Sarah has a butcher shop.
She will buy Gordon's chickens and cows.
Then she will sell them.
The city people will come to the butcher shop.
They will buy the chickens for dinner.
We went to Brooklyn Bridge on Thursday.
We walked across it.
We saw tug boats, ferry-boats, steamers, and barges.
Dorothy has made three window boxes for her hotel.
She will buy flower seeds from the hardware store.
Grace is making a house for the theater people to live in.
Gordon will buy his seeds from Ruth's hardware store.
Ruth has tools in her store, too.
Gordon will need tools on his farm.
Helen has put a roof on her house.
Grace has painted her theater.
Francis' factory has large windows.
Walter is working on a factory.

Language

Three or four days after a visit to the Woolworth Tower, which I have told about under "Ori-

FLORIDA STATE

entation," I asked the children to think of the part of the trip they enjoyed most, and to tell it to me, so that I would feel as if I were really there again, seeing the things I had seen, hearing once more the same sounds. They were very ready to do this, but wanted to start from our schoolroom, put on hats and coats, go down steps, et cetera. I wanted them to record the vivid experience we had shared and not make the telling too long and tedious, so I persuaded them to start the story with the first glimpse we had of the Woolworth Tower. From the beginning the account went smoothly, except that the class needed persuasion to leave out tiny details.

TRIP TO THE WOOLWORTH TOWER
(Group Dictation)

Dorothy—The children said "Look at the Woolworth."

Gordon—We stretched our necks until we almost fell over.

Roger—And then we started to go nearer it. We got nearer it. We went across the street, in through the door.

Walter—We stood quietly in line while the man and Miss Wright got the tickets. Then the elevator came down and we all crowded over each other to get in. Then the elevator lady said, "Now, children, we're going to go."

Mary—It felt like we were in a rushing wind.

Roger—Then we took the little teeny round elevator. We went out the door. The wind was so cold!

James—It made you shiver.

Grace—It almost blew your hats off.

Jenny—It blew your coats.

Francis—It made you feel as if you were rocking in the ocean.

Mary—It made you feel as if you were going to be blown off.

Ruth—The people down on the street looked as small as worms.

Douglas—We saw all the little tug boats and steamers and the Statue of Liberty.

Ruth—The Statue of Liberty looked just about as big as Miss Wright.

Jenny—It's much taller than this house, really.

Gordon—The water was pushing and pushing into the shore.

Walter—There were little white caps on the waves.

Julia—The boats looked like toy boats.

Dorothy—We looked down on the parks. The elevated stations looked like little summer houses on wheels. We saw the cars going across the Brooklyn Bridge.

Douglas—Then we saw the sun shining on the ocean, way back of Long Island.

Jenny—We saw toy trains over in New Jersey.

Ruth—New York looked like a little toy city, no bigger than our school room and the automobiles looked very tiny, and trucks just looked a little bit bigger.

Grace—The Metropolitan looked as if it were ashamed of itself because the Woolworth was so high.

Helen—We saw an airplane.

Jenny—Br-r-r-r. It looked much bigger than when we saw it from the ground.

Mary—We saw a steamer going under the Brooklyn Bridge with a tug pulling it.

Ruth—The houses looked no bigger than boxes.

Sarah—We saw a boat in dock over in New Jersey, and horses and wagons and automobiles were getting off and crowds of people.

Later, different groups of two and three contributed to a verse about the Woolworth Tower. As suggestions came I wrote them down and then read what had been given from the first line to the last. Certain parts were eliminated by common consent of the group working together. We tried swinging to the different lines, and clapping. If one was too evidently out of rhythm it was voted against. One little group gave the first two lines. I caught another group who came in early from the yard and who, after listening to the first

two, contributed the next two. Another group gave the rest. The whole was then read to the class and received its approval.

UP ON THE WOOLWORTH TOWER
(Group Dictation)

Ooo, ooo, ooo, listen to the wind.
Br, rr, rr, there's an aeroplane.
Here's New Jersey and there's New York, and the Hudson River between them.
There's Long Island and here's Manhattan and the Brooklyn Bridge between them.
Under the bridge down on the waves,
Boats go sailing up and down,
Whistles blowing, smoke stacks going,
Captain drives the boat around
Till he reaches Brooklyn Town.

"The Trip Across Brooklyn Bridge" was a group dictation by the whole class written in much the same way as the Woolworth Tower story. There was the same desire manifested by the class to put in each detail of the trip. I used my influence against this, however, as the group soon loses its interest if one contributor after another elaborates, adding one meager step at a time.

THE TRIP ACROSS BROOKLYN BRIDGE
(Group Dictation)

Jenny—I heard "Woo woo," in the wind. I heard the water splash, sh, sh, sh.

Grace—The bridge seemed so old because it was so swayey and dirty.

Sarah—We heard the trolley cars.

Roger—I am the trolley car. Ding, dong, ding, dong, on the rusty old tracks.

Mary—We saw the Statue of Liberty way off in the fog.

Jenny—We saw boats floating along in the water.

Roger—Chug, chug, chug.

Sarah—We heard the horses' feet.

Jenny—Cloppety clop, cloppety clop on the under part of the bridge.

Jenny—We saw a big steamer a little way from the bridge. Toot, toot.

Grace—We saw a tug boat pulling a barge.

Walter—With freight cars on it.

Roger—Way down under the water the subway goes. Clang, lang, clickety clang sh ——. We saw Governor's Island quite close.

Grace—And from the middle of the bridge we saw the whole big city of Manhattan. We saw the Woolworth higher than all the housetops.

Mary—We saw the Metropolitan.

Francis—We saw millions of houses.

Walter—We looked up in the sky and we saw lots and lots of sea-gulls. They had yellow beaks, and one of them had a fish in its beak.

Roger—When we looked toward the east we saw Brooklyn with lots of houses. They weren't so high as the ones in New York though.

Grace—We looked north up the East River and saw the Queensboro Bridge and the cars on it that looked like toys.

Jenny—We looked further north and saw the Manhattan Bridge. It looked very dim in the fog because it was so far away.

This account must have been totally unsatisfactory to Roger, however, for the minute the dictation was finished, he told me he had a story he wanted me to write. In the first free period Roger dictated his version of our visit to the Brooklyn Bridge. He needed a little help occasionally on giving directions. I entered every little step of the way which he suggested, thinking he must be feeling the need for this detail or he would not have proposed it immediately upon the completion of the group account of the same trip. During his two years in the school, he has always made most picturesque additions to any group account. Some of his own stories also have been full of sense and motor recalls.

THE TRIP TO THE BROOKLYN BRIDGE

(Dictated by Roger)

Once upon a time the Sevens went to the Brooklyn Bridge. We went to Sixth Avenue and took the Elevated to Park Place. And then we walked north and then west until we got to the entrance of Brooklyn Bridge. Then we went through the entrance after passing many many trolley tracks that go over the Bridge. Then Miss Wright said after we got out of the entrance, that we could run to the first steps and wait until she got there and then we all ran to the first steps and waited for Miss Wright. And then when we got there Miss Wright came and she said we could go to the next and the next, and then we got over to Brooklyn and we went in the Brooklyn entrance, down to where the trolley tracks were, and waited for Miss Wright to get the tickets. And by the time she came back, Miss Hughes and the rest of her children were there. And we got on the trolley and went all the way across the Bridge without stopping once until we came to Manhattan. After that we took the Elevated at Park Place again. And then we came to Fourteenth Street. And then we walked up to the schoolhouse and went in. And Miss Wright called us into the little room to have reading. And that's the end.

Writing

Writing has been graduated from the large beginnings on the board, to creased sheets of big drawing paper, then to creased sheets of

smaller paper, down to the wide-spaced paper, using two spaces for capitals and one for small letters. Each child, except Roger, who has had difficulty in forming letters, has written an order for his crayons—blue, black, yellow, orange, red, purple, brown. Grace was the first to send in her order so she no longer had need to practice for that. She asked for "real paper" to write a story on. She was allowed to order the first hundred sheets of wide-spaced paper for the group. I helped her later with the story she wished to write by setting words for her on the board. Each child has written a letter to his mother and to some of the absent members of the class. Stress is put on a comfortable writing position, with the paper far enough up on the table so that the arm can rest, with the feet flat on the floor, and the fingers holding the pencil as lightly as the chalk was held. Walter is the slowest writer and holds his pencil tightly. His form is perfect, however.

Letters written at home by the children are brought to me almost daily. Ruth is the most prolific letter writer, and sometimes brings in large sheets of wrapping paper filled with news about her baby brother. She writes the same things day after day—"Williamson is very sweet. He is my baby brother. I hope you can come to see him soon. Love from Ruth." Most of the letters are illustrated.

Number

Careful account has been kept of all the money spent by our class for supplies and for trips. Expenses of each trip are counted up by the group. Supplies are received from the Eights' store with the bills. As each person has ordered his crayons separately and as each crayon costs 2 cents, every one has had some counting by 2's. We received $5 in dimes one day from the office to replenish our purse, and each person present had the satisfaction of counting the dimes to be sure the $5 was there. All can count by 10's. Several of the children cannot count by 5's yet.

Number games are chosen sometimes by Sarah and Helen during the reading period, which is a free one for them as they know how to read. The number games are seldom chosen by any of the rest of the group, who are generally eager to draw or use the Sign Marker in a free period. Facility in playing ten pins is increasing and rapidity in recognizing the combinations of 10. Measuring of the hole dug in the yard for storing vegetables for winter, brought in the use of the yardstick and the study of how many inches it takes to make one foot, and then two feet, which was the required depth of the hole. Measuring continues all the time in shop and cooking.

IV. Organization of Information

Discussions

The children were very eager to talk about the large cattle ranches in the West where much of our beef comes from. Douglas, Walter and Jenny each had contributions to make to the subject of the feeding of the cattle and the round-ups by cowboys. Several of the group had been in the refrigerator rooms for meat at the Gansevoort Market. They were ready to discuss the refrigerator cars that carry the fresh meat from Chicago to New York. A few of the children had noticed the little purple mark on meat that is the stamp of the U. S. government, signifying that the animal is healthy and good to eat. At our bi-monthly assembly with the group of Seven B's, children from that group described the lassoing and branding of cattle, and one child told of the dipping of cattle in acid baths on his uncle's ranch, to free them from ticks.

The truck farms which send over many of the vegetables at the Gansevoort Market were discussed, with results mentioned under "The Play City." I told of my visit this fall to a large truck farm on Long Island, of the mounds of beets buried, the celery planted in trenches, of the little plants of lettuce growing under glass, which some Polish women were separating, and of how only a few cabbages, carrots, leeks, and kale had been

left growing unprotected as the farmer feared early frosts. The driver of the truck had told us that at six o'clock every night, except Saturday, he started with his load of vegetables across Queensboro Bridge, drove up to 162d Street and waited there with his wagon by the side of many other vegetable trucks until four or five in the morning, when the Greek, Italian, and Jewish peddlers arrive to buy their vegetables to sell later in the day. This visit also brought an interesting opportunity for map making which is told under "Orientation."

Trips

Woolworth Tower. Brooklyn Bridge. These trips are related in detail under "Discussions" and under "Orientation."

Orientation

Often during our discussions, as different places were mentioned or dwelt on, I sketched in roughly on the linoleum floor, or the blackboard, maps showing their location and direction from New York. As we talked of the cattle ranches in the West, I drew pictures of the way I had traveled from New York to California, and showed the two great mountain ranges I had had to cross. Sometimes I creased drawing paper for the mountains and stood that up, making high ridges for

the Rockies and lower ones for the Appalachians. I pointed out Chicago at the end of Lake Michigan, and we talked of the packing houses there. I located Omaha and told of the smells there from the packing houses. The reason why there are so many cattle ranches just east of the Rocky Mountains was discussed. The fact was brought out that the winds from the Pacific Ocean have lost most of their moisture by the time they come to the eastern slope and that consequently much of this country is not good for farming but produces only a thin grass sufficient for feeding cattle. Then I showed them where I had seen waving fields of corn further east, where the cattle were sometimes sent to be fattened before being shipped to the packing houses in Omaha, Kansas City, and Chicago. The children came gradually to recognize the Appalachians, the Mississippi River, Gulf of Mexico, Chicago, the Great Lakes, Omaha, the Rockies, California, and the Pacific Ocean as we talked. I always began by drawing in New York and the Atlantic Ocean.

Trips were taken to the Woolworth Tower and the Brooklyn Bridge to help the children in gaining clearer ideas of the island they are living on, and to see it in connection with New York Harbor, the Hudson, Harlem, and East Rivers, Long Island, New Jersey, and Staten Island. Many pictures were painted or drawn of the things seen

on the return from these trips. The Woolworth Tower was added to some of the maps the children are working on, which show the schoolhouse and places in the vicinity, like the Gansevoort Market and the Hudson River docks. Ruth drew a map showing the school house on Twelfth Street near Seventh Avenue, the Woolworth (I helped her here), and Jenny's, Grace's, and Walter's houses on Eleventh Street. She put in blue water directly south of the Woolworth Building. When she explained her map to the class she admitted that the water was too close. Douglas's map was the most painstakingly done. He showed the Woolworth Tower, Broadway crossing Fifth Avenue at Twenty-third Street, many intersecting streets, and the schoolhouse. He had help from me in placing Broadway.

While reading Mrs. Mitchell's story of Boris we followed Boris's journey in New York by pointing in the direction he was going—to the Hudson River, the Harlem River, the East River, the Harbor and traced his travels on a large map of Manhattan. Then I suggested drawing on the floor or board a picture of the way he had gone, starting on Fourteenth Street over on the East Side, making him walk across to the Hudson, then the long, long journey north, etc. I drew on the floor as the children drew, all of us watching the outline of the map of Manhattan which hung up on

the wall, in order to get the land and water shaped properly. We spent only a few minutes on this, but each one had drawn in that time a crude outline of Manhattan Island. Then we played some games of location, one child stepping on different parts of his map—Central Park, the Hudson, East River, letting other members of the group guess.

In telling the group of my visit to the Long Island truck farm I was interrupted by several of the children who had been to Long Island and who were anxious to tell how they had reached there. I drew a picture of the way I had gone, showing where I took the train at the Pennsylvania Station, how we went across the city, underneath the streets and buildings, and then under the East River, coming up to the surface on Long Island to see factories and stores, and finally, after passing many houses, how we came to some farms. I indicated also where the farmer drove his truck each night across the bridge and where he waited until morning.

Stories

After we had visited the Woolworth Tower, I read "The Sky-Scraper," from *Here and Now Stories.*

The story of Boris was read as well and his trips about New York were traced. "Eben's Cows," from the same book, was read and asked

for over and over. Helen brought the *Just So Stories* to school and asked me to read "How the Leopard Got His Spots." But it went over the heads of most of the group and, as they were allowed to leave quietly if they wished, only four children remained to the end of the story. Kipling's "Big Steamers" was read and two of Louise Ayres Garnett's poems, "Friends" and "The Procession."

Science

EXPERIMENTS ON AIR PRESSURE

Mr. Meister tied a piece of cheese-cloth over a bottle and poured water in. He held the bottle upside down and the water did not come out. Then each child performed the same experiment. Mr. Meister said, "Why does the water stay in and not come through the holes?" Grace answered, "There isn't any room for the air to get in and push it out." "How can you get air in?" Mr. Meister asked. The children suggested, "Tip it over sideways." Mr. Meister said, "Why does it come out then?" Class: "There's room for the air to get in then and push it out." Mr. Meister held the bottle sideways and let the children listen to the water as it gurgled out. He said, "If I have a bottle without cheesecloth over it and turn it upside down, will the water come out?" The children answered, "Yes, because there's a big

hole for the air to get in." Mr. Meister said, "But if it's a little hole?" Then the children responded, "Then it won't; there's too little room for the air to get in."

Mr. Meister then proposed trying it with a bottle with a very little hole. He said he would make a bottle out of a long narrow tube by closing it at one end. Grace volunteered, "You can melt it." He melted the end of the tube which closed it up. Then each child took a piece of glass tubing, melted one end, closed it up, filled it with water, and found that the water would not come out when the bottle was turned upside down.

In another period, the children made fountain pens and fillers. Each child took a piece of glass tubing, and held it so that the middle of it was in his gas flame. When the heated middle part of the tube began to melt, the child pulled the tube out until the melted part was lengthened to a point. Then he broke it in two and closed one end. He used his closed piece for the fountain pen, and the other open piece for a filler. He put his filler in the water, using this in place of ink, and let the water into the tube by holding his finger tightly over the top opening. "So the air can't get in and push it down," Francis said. With his finger still pressed tightly over the top, each child then lifted up his filler and filled his fountain pen by removing his finger, thus allowing the water to pour out.

DECEMBER

I. Play Experiences

The Play City

The weather was too cold or wet or snowy to admit of any play with the City buildings in the yard. As this caused much disappointment, I suggested that each building as it was finished be brought over to the classroom and left there to be played with until the weather was more propitious. This proposal met with great approval, and caused some of the group to spend more time and greater effort on the shop work. One or two of the houses were painted the last day of the month and are ready now to be brought over. Housing arrangements for the City are quietly being made among the children as they work in the shop. Grace has engaged rooms for the winter in Jenny's hotel for the actors and actresses of her theater. She is making a summer home for them herself with a large open space for sleeping quarters on the second floor. The butcher shop, branch library, and post-office are also provided with second story apartments.

Play with Big Materials

This appears under "Discussion," "Dramatization" and "Language."

Organized Games

Most of the out-of-door playtime, this frosty weather, has been spent in playing organized running games. The two groups of Sevens enter enthusiastically together into such games as "Steal Sticks," "Red Rover," "Blue Bird," "Here We Come," "Cat and Mouse," "Three Deep."

Drawing and Painting

A great deal of serious planning of costumes and scenery for the Christmas play, which is discussed at length under "Organization of Information," has taken place, followed by the hunting up of materials, cutting, painting, and work in the shop. Mr. Zorach met with the group, each member telling him what he was going to impersonate in the play. After some discussion we decided to use tag board, drawing paper, and cardboard rather than cloth.

The child impersonating an orange cut and painted an orange large enough to cover all of himself except his face, which, as Helen suggested, was "the spirit showing above the leaves." The cranberry, banana, apple, orange and Christmas tree were represented similarly. The children tacked pieces of wood on the backs so that they were easy to hold. The lump of sugar brought a large corrugated box from home which she painted

white and on which she printed "Lump of Sugar." She cut a hole in it large enough to get her head through, and slipped it down over her body so that only her head and legs showed.

Each of the children cut out leaves suitable for his fruit or vegetable, and wore them in a wreath around his neck or draped in some way. The head of lettuce was represented by many leaves cut out and painted and pinned on the dress of the child. The plum pudding and turkey were cut out, painted and mounted on platters which were worn as collars around the necks.

The scenery of the play took more time than the costumes. Old sheets were brought from home and different groups of two and three worked together, carrying out ideas that had been suggested during discussions. One scene was of a large fireplace with a most realistic fire and andirons. Grace superintended the painting of this. She chose her helpers from certain children who had demonstrated to her that they knew how to paint fireplaces. Ruth decided to paint the dining-room table with the turkey and bowl of fruit on the sheet she had brought. With the aid of her assistants she put on a very elaborate table cover with an orange-colored design. Then she wanted a waiter bringing in the plum pudding to complete the table scene. Walter and Gordon both offered to paint the waiter. At my sugges-

tion they each submitted a drawing of a waiter for Ruth to choose from. Ruth chose Walter's with the full approval of the class. A third piece was a bookcase filled with books of different colored bindings. This painting took a great deal of time and patience as several of the books had designs on the backs. Children working on other scenes came to the rescue here. Still another bit of stage setting represented a china cupboard full of dishes and ornaments. This was initiated and superintended by Sarah who before this has shown little originality in any kind of art expression. The last painting was a small table with a large bouquet of different colored flowers.

Mr. Zorach came in once or twice during the painting of the scenery and gave suggestions about the mixing of colors. He also gave some criticisms that were immediately accepted and acted upon, such as, "The waiter looks as if he had only one leg," and, "The table does not look strong enough to hold all of the dishes and food."

When the scenes were painted the children took them over to the shop and nailed them on standards so that they could be placed easily in the gymnasium where the play was to be given.

Before the scenery was all finished several of the group were anxious to get back to their drawing and to the boats, trains, bridges, and houses for the Play City which they are so fond of

painting, but for the most part there was thorough co-operation. Any one in need of help with a costume or design had little difficulty in securing assistance.

II. Practical Experiences

Shop

As the making of the City buildings had had a very good start and was progressing to every one's satisfaction, the shop period was changed definitely to a free period. Walter has been the one to show the least interest, perhaps because of his great love of drawing. As soon as the shop time was changed to a free period, he chose never to go to shop. When asked why, he said he didn't know how to go on; didn't know how a factory looked. We had a class discussion on factories and showed several pictures of them. Some of the points brought out about factories were that they should have large windows for light and air, big elevators, derricks, chutes. But still Walter was the only one who never took advantage of the free shop period. So the case was put before the group that Walter had started a boat and a factory for the City and that he was working on neither. When one child after another then expressed his opinion that there was a lot of work to be done in making the City, and that no one who did not work for it should be allowed in there when

it was finished with all the buildings up, the electric lights in, the electric trains running, and the boats going up and down the river, Walter went regularly to shop day after day, and worked hard at the large windows of his factory. Francis already has a derrick in his factory to pull things up to the second story. Roger left his City building for a while to work on a Christmas box for his mother. He finished it with a lid put on with hinges, and painted it blue. Ruth has finished the stairway for her house, has the roof on, and, as soon as the paint is dry on it. is going to bring it over to the classroom.

Work was also done in the shop in making the standards for the scenery. I have told of this under "Painting" and "Drawing."

Cooking

The group has made Christmas candy with Miss Hannum. This came in nicely with our study of sugar which was occasioned by Ruth choosing to represent a lump of sugar in the play.

Cooking Notes by Miss Hannum.

1. CANDY MAKING, PENOUCHI

The class, with the exception of Grace, had very little to offer in the way of suggestions. She had made chocolate fudge at home. Everyone said candy was sweet and so sugar must be used. Some

suggested baking powder and flour, but the majority scorned these suggestions. The test formation of a soft ball in cold water was also suggested by Grace. Each group did that very well.

2. PLAIN CAKE

The year before the group had formulated this recipe and used the proportions as a basis in flour mixtures.

No one individual remembered the whole recipe, but with the help of a group discussion all the ingredients were thought of in their correct proportions. The method of mixing was partially remembered. After the discussion the class began their work in groups of two.

They carried the process through with surprising rapidity, and their technique was so improved that their cakes were delicious. The results were of much better texture than they had ever produced last year. Only one group, James and George, forgot baking powder. As the cakes were baking, the class noticed that those cakes were not rising to the same degree, and immediately asked James and George if they had used baking powder.

Clay

Some animals have been made for the parks of the City. Dishes and utensils for the City buildings are being worked on faithfully.

III. Special Training

Reading

With the exception of Roger, Jenny, Gordon and Dorothy, all the group have finished reading the Winston Primer. Each child has been checked off on each story, either by reading it to me or to some responsible child. Many of the half hour reading periods have been given over to small groups of two or three studying together. One child would read while the other listened, then vice versa. Jenny read all of the stories, but found no one who would check off the last story in the primer for her, although she tried several people, including me. She was very cheerful about it, however, and took her book home over vacation, saying she would study it some more. Of the group, she is the least conscientious about studying. She is also the most inclined to exaggerate the amount she knows. Dorothy works conscientiously and slowly, and for long periods of time, and is worried by the fact that some of the group are going faster than she. Occasionally, in free periods, she chooses to work with the word cards, coming to me for help. Grace and Ruth have made the greatest progress. They are so far ahead of the rest of the group that most of the reading periods are now free periods for them, and they may go with Helen and Sarah to the shop or to pottery or may choose other work. Mary is

following fast in their footsteps also and often remains with the group for only part of the reading period. Ruth seems to be fascinated by the printed word. Her mother reports that she wants to do nothing at home but read and write. She sometimes brings simple little stories from home to read. Grace picked up *Little Black Sambo* one day in a free period and read some of it easily. She worked at it with help from me until she could read most of it well enough to attract and hold Francis, Walter and Roger while she read. Helen and Sarah sometimes bring stories from home which they ask to read to the group.

It was interesting to watch the attitude of the group toward reading the week before Christmas, when for several days it had been impossible to keep the reading period. Several of the children began to complain that they never had a chance to read any more and they would snatch up their books at odd moments to read. This group anxiety to read caused several of the class to finish their primers, and pushed Gordon and Jenny to work hard trying to do so. Roger and Dorothy were absent part of the week and so missed this wave of enthusiasm.

The typewriter which we share with the Seven B's is in constant demand when in the room. Letters are typed, personal items from the newspaper and parts of stories from the primers

copied. I had jotted down on the board the list of characters for the Christmas play as each child chose his part, and the copy of this program was typed or printed or written so many times to take home or to save for the play that, when it appeared in our last week's newspaper, most of the group knew all of the words—banana, orange, cranberry, turkey, et cetera. Ruth gets her father to take her to his office to use his typewriter and brings stories to school about the different children and the City, or about her brother.

Sometimes there have been printed directions on the board for the following day, and these have been eagerly read.

DECEMBER NEWSPAPERS

The post-office is almost finished.
The hardware store and the country house are almost finished too.
They are painted, and have the windows in.
Soon the curtains will be up.
Roger has made the tables for his schoolhouse.
He made a teacher's desk.
Hear the children coming in to school.
Pit, pat, tap, tap, tap.
They like their schoolhouse.
The bell is ringing, ringing, ding, dong, ding.
Our Christmas play will be on Friday.
Gordon and Jenny and Dorothy and Helen made songs for it.

Douglas is a cranberry in the play.
Mary is a head of lettuce.
Ruth is a lump of sugar.
Francis is a nut.
Grace is a little girl.
She hears the turkey talking to the plum pudding.
She hears the banana and the orange singing.
She sees the Christmas tree taking a walk.
Then she sees the apple and the nut bow to each other.
She says "Oh, Oh, Oh. They are all dancing!"
Do you think it is a good play?
Merry Christmas, boys and girls.
Vacation begins tomorrow.

Language

Language appears under Discussion, Dramatization and Language.

Writing

Letters to individual children and to groups have been written by all the children. Some of these were notes of invitation, of thanks, or business letters. The mail-box which Dorothy made and put up in the room is eagerly watched for return of mail. Letters of invitation to the Christmas play were written to mothers and to various people the children wished to invite. The form of invitation was decided upon by the group and carefully written by me on the board.

This was copied, but sometimes with variations.

Christmas letters were written, each child writing to whom he pleased, and what he pleased, while I wrote words asked for on the board. Very often the notes and letters were illustrated with colored crayons. The following letter is typical of the present style of composition.

"Dear Sister,
Merry Christmas. I hope you will like Christmas. Love from,
Douglas."

Bookkeepers are chosen every two weeks for their careful, plain handwriting. Occasionally, a test is given just before the election of the bookkeeper. The list of supplies purchased which must be recorded by the bookkeeper is written on the board and copied by the children. The papers are looked over by the group with me, the ones easily read selected, and the election follows. Francis was chosen when the following items were to be copied:

Drawing paper	.81
Writing paper	.30
Delivery	.05
	1.16

The bookkeeper, in addition to recording sup-

plies purchased, must write the order when new supplies are needed, as the Eights who keep the store must be notified the day before materials are to be delivered.

Letters are brought daily to school by different children. They write about their buildings for the City and draw pictures of them, or write about their baby brothers and sisters. Helen wrote a song for the Christmas play at home, and Ruth wrote out her part in the play and brought it. Some of these are given under "Organization of Information." The typewriter, if it is in the room during the writing period, is always chosen by some as a preferred means of communication.

Number

On an election day for a new treasurer, the purse, aside from the dollar bills, half dollars, and quarters it contained, was full of nickels and dimes. Crayons had been purchased at 2 cents each. Therefore, certain tests for the treasurer were decided upon. He must be able to count readily by 5's and 10's and 2's. In this way Francis, Helen, and Dorothy were eliminated from the election. He must also be able to count accurately and quickly the amount of money in the purse. Walter lost out here. Each person had a chance to count the money. Some of them carefully sorted out the different pieces before begin-

ning to count. Others sorted as they counted. It grew to be a game to see how many different ways of counting the money there might be. Two nickels were put together and counted as dimes, two dimes put together and counted as twenties, two dimes and a nickel put together and counted as quarters. There is an election every two weeks.

Different children have taken over the task of setting the clock each morning. Most of the group consult it at different times of the day, fearing to lose special periods of pottery, or music or play. The bell for lunch cannot be heard in our room, so the clock is watched for 12:35. There is an old clock face in the cupboard and sometimes small groups play games with it, one child setting the hands, and the others stating the time.

Tenpins is being played all the time with better form and speed and more accurate keeping of scores.

IV. Organization of Information

Discussion, Dramatization, and Language.

Douglas came back to school from his Thanksgiving vacation, eager to tell about the cranberry bogs he had seen in New Jersey. He described them and told how the farmer turned the water on them to keep the cranberries from freezing. Gordon had seen cranberry bogs in Massachusetts in October, and added some information supple-

menting Douglas's. I read about cranberries from Chamberlain's *How We Are Fed.* We talked about what the country people are doing for the city people, and discussed the many different fruits and vegetables that are being sent in daily to New York City from all over the world. As interest grew in talking about the foods we had had at Thanksgiving time, and were going to have at Christmas, the idea developed of having a play in which these different fruits and vegetables come alive at Christmas and begin to talk and sing and dance. This came partly through a suggestion of mine that it would be interesting if the various foods we have on our tables could suddenly talk to us and tell us all about themselves and their travels. The group was keen for a play. Helen had tried to get one started before and had interested Mary and Sarah to the extent of helping her for one free period in preparing scenery. But her play had not developed further. Nearly everyone was ready to decide immediately upon the part he wished to take in the play. Douglas chose to be a cranberry because he knew so much about how they grew, Walter a turkey, Gordon a plum pudding, Ruth a lump of sugar, Mary a head of lettuce, Jenny an orange, Sarah an apple, Dorothy a banana, Francis a walnut. Helen decided she would be a Christmas tree, and Grace a little girl.

After each child had chosen what he wished to be, the discussion periods were given over to helping the different ones decide what they would tell about themselves in the play. In the end each fruit and vegetable, the turkey and the tree had discussed with the group something of his life history, how and where he grew, how he was cared for and by what kind of people, and how he was finally transported to New York City and taken to a warehouse or market, and finally to the house of the little girl of the play.

Occasionally, I read from Chamberlain's *How We Are Fed,* or Carpenter's *How the World Is Fed,* or from Smith's or McMurry's Geography. But the attention of the group was held much better if such things were told, rather than read.

Two days after we had first discussed the play Ruth surprised us by writing at home what she intended to say in the play. Later, Helen did the same thing. Some of the others came to me and dictated what they were going to say. No person, however, kept exactly to what was written down for his part. The parts were changed continually as the play progressed; Ruth added a great deal to hers, as did Grace. The life histories of the banana, the orange, and apple were not written down at all, but were told very well.

We told Miss Hubbell about the play and asked if she would help with the music. She gave us

some free music periods for the children who wished to make up songs for their parts. Dorothy, Helen, Jenny, and Gordon asked for some of this time. After they had made up the words for their songs, they went over to the music room and worked with Miss Hubbell in composing music for their verses. Afterwards, the whole class learned the four little songs to sing in the play.

The following are the parts that were written for the play:

THE LUMP OF SUGAR

(Written by Ruth at home)

I am the sugar from Cuba. I came on a sugar boat. I was boiled and ground. Then I got in the docks. Then I came to Christmas dinner. I am going to be eaten.

THE CHRISTMAS TREE

(Written by Helen at home)

I am the Christmas tree. The woodcutters cut me down and brought me here with many a frown, and a lady dressed me up. She dressed me up with little balls and went behind the walls and went to bed.

THE WALNUT

(Dictated by Francis)

I am the nut that came from the woods. And I loved it a lot because of the darkness. And the birds sang around me, while I hung on the tree. When people came to get me, a little boy shook the branch that I was on. When I tumbled down I fell

on his head and he said "Ouch." Then I was put in a bag and I was sent to a train, and then I was taken off and sent to a house. I was put in a cylinder, with a horse going round and round outside. I rolled out on the big side and the little nuts rolled out on the little. Then I was put on a tray to dry with thousands of other nuts. Then I was put on a train again and I landed in New York. And here I am at your house on Christmas day.

THE CRANBERRY

(Dictated by Douglas)

I was growing in a cranberry bog in New Jersey, where there are lots of other cranberries. And they put water two feet deep around us to keep us from freezing, because the water doesn't freeze as quickly as the air. Then people came and picked me. I was sent on a train to New York. Then a grocery wagon came and took me to the grocery store. Then your mother came and bought me.

THE PLUM PUDDING

(Dictated by Gordon)

I came from the kitchen. I was made out of dough and spice, and raisins and sugar and everything nice. The raisins came from Spain. First they were growing on a grape arbor. Many other grapes grow in California. But I grew in Spain. Then they came and picked me. And then they loaded me in a basket and put me on the back of a donkey with many other brothers and sisters.

The donkey took me to the drying house. They dried me by steam. Then I was a raisin. They took me down to the docks and put me in the hold of a big ship, and then the ship came to America and then a grocery man came down and bought me.

THE TURKEY

(Dictated by Walter)

Gobble, gobble, gobble. I am the turkey that came from the barnyard and I thought myself so proud. But the farmer came and caught me and I didn't like it very much. I guess that farmer was glad because I was so nice and big and fat. They are going to have a jolly feast I know. How do you like my looks? I am so nice and brown.

THE LETTUCE

(Dictated by Grace)

I am the lettuce, so stiff and so crisp. My leaves are so crinkly and yellow and green.

THE BANANA

(Dictated by Dorothy)

I am the banana
That came from
Central America.

I'm going to be eaten
By one little child
At Christmas time.

THE ORANGE
(Dictated by Jenny)

I came from Florida
Far, far, away,
I am the orange
That stands in your way.

As the different characters decided on their parts, the plot of the play developed. The play was called "Christmas Morning." The time was just before the Christmas dinner. The place was the dining-room. The scenery, described under "Drawing and Painting," was the interior of a dining-room, the table set for dinner, and a Christmas tree in the corner. A little girl comes dancing into the room, looks at the table set for dinner and says she wishes all the things on the table could talk to her. She runs out and the Christmas tree begins walking around and singing a song. Then in comes the turkey on a platter, the plum pudding, and all the rest, all calling out "Merry Christmas" to each other. They dance part of a minuet together and the little girl runs in, just in time to see them making bows. She is very much surprised and gets them to talk to her and sing and dance. She asks them questions about where they came from. The dinner bell rings then and they all dance out together.

The play was given just before the Christmas vacation. Mothers and fathers were invited, and

also the Sixes, the Seven B's, who furnished some band music before the play began, and the Eights. The bright costumes and wreaths of holly and the gay scenery made an effective setting. The play itself occupied only about twenty minutes and was not at all a finished performance. It was merely one act, simply and spontaneously played. During the three or four rehearsals some of the actors had changed parts, and there had been some boredom on the part of the group during the rehearsals in listening to the Lump of Sugar, the Nut, or the Orange tell so many times their life histories, in answer to the little girl's questions. But there was good control from everyone except Ruth, who found it hard to be still waiting for her turn and listening to things she already knew. Jenny criticized the play before the last performance by saying, "It isn't so much an acting play as it is a looking play, is it?" They were all very happy over it, however, and had put in a strenuous three weeks in painting, music, dancing, composition, and geography. Much of the reading and writing had been connected with it also.

Orientation

We took a trip to the Pennsylvania Station and saw trains leaving for Long Island, for Washington, and Chicago. The Station Master sent a guard to go with us to the lower level to see the

dining-cars, freight cars, elevators, and electric trucks. The children talked with an engineer sitting in his electric engine. He told them he was going to take the train only a short distance out of the city and then a steam engine would take it on to Washington. We saw the ticket offices, baggage rooms, electric running board for sending checked parcels down below, and finally came up the walking stairway. At the entrance the attention of the group was held by the pictures which show some of the country through which the Pennsylvania Railroad goes, with its mountains, streams, valleys and forests. The large map there, too, showing the route from New York to Chicago, caught their interest and they wanted to have Chicago and Lake Michigan pointed out. Roger a few days later brought a large map of the world to school. This was thumb-tacked on the wall and different children were eager to find or point out the Atlantic, Pacific, California, New York, the Panama Canal, and Cuba (where the lump of sugar in the play came from). The voyages of all the fruits in the play were traced on the map from their original homes to New York City. Gordon left for California the last day of school before Christmas. He said he would write to us, and tell us what he saw on the way out.

A new picture map of Manhattan hung up on the north wall of the room inspired Francis and

Gordon to draw a rough outline map of Manhattan together.

Trips

Pennsylvania Station.

Stories

Several stories were read from the Jungle Books. "Rikki-tikki-tavi" gave the greatest pleasure. "The Voyage of Wee Red Cap Brownie" in Dickenson and Skinner's *Christmas Stories* held a breathless audience when it was told, the day before the Christmas vacation. The class greatly enjoyed also "The Little Engine That Could," retold from the "Pony Engine" by Mabel Bragg in *My Bookhouse,* Vol. I. Verse about winter storms and winds from the collections of poetry in our room is meeting with an appreciative response from the group. Helen brought "The Night Before Christmas" and read it, holding the attention of all of the children.

Science

Mr. Meister had a conversation with the group, in which he showed them the new electric engine purchased for the Play City, and they told him the different things for which they would need electricity in the City. He then explained the switchboard through which they might make their

connections for electricity. He told them of the pipe that goes down to the cellar from the switchboard, and how this pipe connects with a great big pipe which goes to a power plant. This power plant sends a branch to each house so there are millions of wires in the pipe. Each pipe connecting with a house has two wires in it.

The children traced the pipes going from the switchboard to the one that brings electricity to their plugs, and the one furnishing electricity for the lighting of the room. Then each of them made connections with their plugs. They experimented, touching the copper ends of their wires together and getting sparks. They found that if one child held his two ends together no one could get any sparks. They said it was because he was using it all up. Francis said, "Don't you see, all the power is going to Helen." They also experimented by having several children hold hands, the one on each end touching the copper ends from his plug. Each child reported a tiny shock. Then they wet their hands and reported more of a shock.

JANUARY

I. Play Experiences

The Play City

During every free period business is transacted and social duties are performed in the Play City, which is located temporarily in our smaller class room. At the slightest opportunity, odd moments are snatched to continue the dramatic play carried on there. There is a great deal of dusting and cleaning of the houses and rearranging of furniture by the girls. Locations of houses, drug stores, the post-office, hotel, and theater change often. Sometimes there is a river drawn with blue crayons on the linoleum of the floor. Yards, with flowers blooming in them, are managed by thumb-tacking pictures of flowers and grass on the floor in front of the houses. The owner of the theater was very generous at first, loaning her theater to anyone who wished to give a marionette show. The theater was in such continual use both for rehearsals and for shows, however, that Grace finally said, "It was a good deal of work for me to make my theater and I think you should pay me five cents when you want to give a show." This caused consternation and some indignation

at first, but after talking it over, toy money was proposed for use in the City, as the storekeepers, hotel owner, etc., would all be needing some kind of money. Grace was satisfied with this, but raised her price to five dollars.

The hotel has been full to overflowing, as several of the inhabitants of the city have not yet finished their houses. Dorothy has had some difficulties with her tenants. She came to me one day with, "Can't a hotel owner put people out if they don't agree? Helen keeps her room so awful. She lets things hang out over the roof." We discussed rules for hotels. Then Helen was served with a notice that unless she became a desirable tenant, she would have to give up her room. Later, Dorothy had trouble with Walter because of the hard bed she had put in his room. He was very indignant because his bed was only a piece of wood with a rug thrown over it. I suggested renting that room at a cheaper rate, but Walter decided not to take it, even with a reduction. Later, Dorothy complained that Grace had moved in without asking her. Investigation proved that Grace, while her own house was getting painted, had engaged a room in the hotel which she afterward found she did not like. So she had moved into another one, which Dorothy was herself using, without asking permission. Grace was evicted, and kind-hearted Jenny took

her into her apartment over the post-office until her own house was ready. Dorothy decided it might save trouble to have some printed hotel regulations. She asked me to write the following ones on the board and then she typed them, and put them up.

Apartment, 4th floor	$20.00
Roof garden	10.00
Dinner	1.00
Breakfast	.50

Dorothy had to do some calculating before she reached these prices. She said she would charge $10 for ½ week, so that would be $20 a week. Then in discussing prices for meals she decided breakfast should be ½ as much as dinner. She had no difficulty in making the deductions. The hotel is provided with a counter with a little hinged door by which the hotel clerk can enter. A small registry book has been made and is kept on the counter and a doll stationed there to welcome guests.

Different children have helped the postmaster out by making tiny envelopes and sheets of paper at home for the mail. Helen received a letter one day and when I asked her what it said, she replied, "Oh, it's telling me there is a drug store to rent in the City, and asking me if I want to take it." I said, "Then you would have to live in the City,

and you like the country." But she answered, "No, I can go back and forth on the ferry."

There have been several afternoons of dramatic play together for the two groups of Sevens. Dolls were taken up and down the elevator of the Woolworth Tower at twenty-five cents apiece. One of the buildings which has a large roof garden proved a popular place for parties. Often all of the dolls of the City were invited. They were all seated at tables and served with tiny cups which were supposed to be filled with chocolate. These cups were then removed and saucers of ice cream served.

Many of the group are so absorbed in the City play, the making of rugs, bed clothes, curtains, and furnishings, and the painting and drawing connected with it, that if they were allowed freedom of choice, they would often choose to stay in the house and play rather than to go outside.

Grace's theater was so fascinating, by the time the curtain was put up with draw strings, and the footlights were in and attached to batteries, that an audience could be collected for any kind of a play. The turning on of the footlights and drawing of the curtain furnished sufficient joy. The first plays given were mostly domestic dramas in which going to the dentist or the feeding of children and putting them to bed played a prominent part. Any dolls or furniture that could be bor-

rowed were used. These plays entailed no work or thought on the part of the producers, except the hunting up of such settings as the play demanded—tables, chairs, lamps, beds, rugs, and dolls. After a few days of this, I announced that thereafter no time could be taken for a show until the manager had shown evidence of having a real play and scenery to fit it. I suggested working together in groups. This demanded knowledge of the same story. So the children went to their primers and readers for the stories. While this worked very well with several of the groups who chose very simple little stories, some of the children found the producing of their chosen play brought along with it so many complications, that they lost the joy of the undertaking. Jenny, for instance, working on the "Little Red Hen" with Ruth, who proved a very poor support, was willing to drop the project entirely. When I asked her if she did not think she should finish it after having started it, she said, "Yes, but I know one thing—I won't start another." Francis' story which he had made up himself was most satisfactory, as it contained only three characters, and he had no difficulty at all in producing it.

Tickets were made for most of the shows. These were presented at the door, the printed numbers on them detached, and handed back to the purchasers. Sometimes there was a musical number

preceding the play, a child or a group of children singing a song. The paper or pasteboard figures were attached to strings and let down on to the stage from the aperture in the top of the theater. Sometimes it took three or four children to operate all the different marionettes in a play, and as the stage of the theater measured only fifteen inches in length, complications ensued. Details of the scenery and costumes for these plays are given under "Drawing and Painting."

Play with Big Materials

OUTDOORS

The ground has been covered with snow and ice most of the time, so that the children have had a wonderful time coasting on their sleds, sliding, or digging with shovels. Sometimes two or three sleds are hitched together with several children to pull them. This often turns into a dramatic play of Eskimos driving their dogs. One day it was Santa Claus and his reindeer. Forts of snow have been built and battles fought between opposing armies. Part of the time there has been a long stretch of ice under the slide, so that when a child reached the bottom he went on for a delicious three or four feet more, sliding on the ice.

INDOORS

"The Wee Robin's Christmas Song" was dramatized by a small group of children working

almost entirely by themselves in free periods. Grace and Jenny were the leading spirits of the group, and brought veils and robes from home. They made crowns at school for the king and queen. Francis was the Cat, and made a cat's face and tail. It was the opportunity for playing the parts of king and queen that attracted and held the group in getting up the play. They were so well satisfied with the rehearsals that an invitation was sent (without my knowledge) to the Seven B's to come to the final performance. The play seemed to afford a great deal of pleasure to the audience. The king and queen sitting on their thrones received the greatest share of attention.

Drawing and Painting

Everybody worked industriously on scenes and cardboard marionettes for plays to be given in Grace's theater. My suggestion that they work together in groups on stories known to all the group, met with an immediate response from everyone except Walter, who always has his own absorbing schemes for the drawing of electric trains or boats or animals. He was persuaded, to join a group willingly enough however, when he found they needed animals drawn for their play. Most of the plays decided upon were stories taken from the primers and first readers in the room, and therefore were mainly about animals.

We had "Chicken Little," "The Three Billy Goats Gruff," "The Boy and the Goat," "Little Red Hen," and "The Bremen Band." Dorothy and Helen worked together on "The Three Billy Goats Gruff." One of the children said to Dorothy: "You can't make goats. Get Walter to make them for you." Dorothy replied indignantly, "Yes, I can too, I know how because I had a gray goat this summer." But after she had practised awhile, she became dissatisfied and asked Walter to draw one for her. She had no thought of using his in the play, however. She placed it in front of her as she worked, and made it serve merely as a copy. She and Helen together produced a very successful play. Their goats and troll turned out very well. They also had some effective scenery—a river going under a bridge, and a distant green meadow.

Francis staged his own story of "The Turtle that was Puzzled." After working by himself he became dissatisfied with his animals, and went to Douglas, with whose help he carried on his work to successful completion.

Ruth and Jenny both had trouble with the animals in "The Little Red Hen." Before they could get any satisfactory results at all, they needed much help from drawings made on the board by different members of the group. Sarah, when she found her play of "Little Half Chick" entailed a

fair amount of practice to produce anything she would use, needed encouragement before she was ready to go on with it. But it stimulated her more than has anything else, so far, to try the drawing and painting of something other than houses, trees, and flowers.

Douglas painted two paper marionettes of the boy in the "Boy and the Goat," as he said it was necessary to have one scene where the boy was standing up driving the goat, and one where the boy was sitting down crying. The marionettes were attached to strings and let down from the top of the theater as the time for their entrances into the play arrived.

Besides the drawing of the characters for the plays, scenes were painted of distant mountains, of far-off and near-by trees, and of rivers and meadows. After a play was given, all of the scenery and marionettes belonging to it were put away in a large envelope and labeled so that, if the managers wished, it could be produced again.

Douglas and Walter work continually on large pictures of animals—whales, tigers, steers. They are very critical of their own efforts, but are held in much admiration by the rest of the group. Walter works at home also, on careful, intricate drawings of electric engines, and brings them to school to explain to the class. He inspires Roger, who has not such a great amount of skill, to work

away too on trains and engines. Many of the children continue to make drawings at home of the Play City buildings and bring them to school.

II. Practical Experiences

Shop

Now that some of the houses are over in the classroom, with windows of celluloid put in, with curtains up, and families of dolls moved in, enthusiasm for working in the shop has taken a great leap. Ruth and Sarah have each written me a letter saying they liked shop best of all in school, and to my astonishment I received a note from Walter saying shop was one of the things he liked best. Walter is now making the engines and trains for his train factory, and finds this task much more to his mind than the sawing of wood for windows. He has taken a great deal of interest in making and putting in the derrick for his factory, and has done a skilful job of painting.

Douglas made a very successful derrick for his mill, and is constructing a dock for the boats bringing wheat to the mill.

When Francis reached the stage on his factory where he could begin painting the walls to look like bricks, he said, "Now at last I am really happy." But he has found painting in the small bricks a long tedious job, and has needed encouragement to keep on. He traded off with Jenny

several times, when she had a hard piece of sawing to be done, although he was not satisfied at first with the way she painted in his bricks.

Furniture is being made for all of the houses out of thin smooth wood. Roger has completed the tables and chairs for his schoolhouse and made a desk for the teacher. He secured the assistance of Sarah in painting the furniture. He stands out among the group as being the first one to tire of a long job, but if he can leave it for a while and work at something else, he takes it up with interest later. He likes to go back to the boat he made at the beginning of the year and put in improvements. He has just added a cabin to it. He has also made a bow and arrow for which he asked for extra shop time.

Grace was the first one to start curving the backs of her chairs, and now several of the children are following her example. Every house so far has an elevator in it, worked with a small metal pulley, or a pulley made out of an old spool, or else it has a stairway.

Jenny, who has found the room over her post-office too small to satisfy her needs, is adding a small box to the side of the building, to provide another room. She would not consider having more rooms when she first started her building, thinking it too much work, but now that she is driven by a real need, she does not mind the labor.

Ruth and Helen, immediately upon completing and furnishing their first building, launched out upon other schemes—Ruth upon a warehouse to store her extra furniture, and Helen upon a drug store.

Dorothy said that she needed to make a bed for her large doll at home as her father did not have time, so she brought the doll to school, measured wood for a bed, painted it, and put designs on it. She has painted a trailing vine on the side of her hotel. She wrote a letter one day saying, "I made my hotel, but I have not made a counter but lovely designs and an elevator and an electric light."

Repairing is occasionally necessary on the houses. But generally it is at my insistence that porch railings which show a tendency to come off are fastened on more firmly; or that wobbly step-ladders which slip from their fastenings are made safe.

Sewing, Weaving, and Dyeing

After measuring the open space of her theater, Grace cut some curtains from a piece of an old sheet and hemmed them. Then she went over to the science laboratory and got Mr. Paley to help her dye them a bright red. She sewed on small brass rings, and hung the curtains on a towel rod across the front of the theater. Then with some

help she ran cords in, so that the curtain could be pulled easily back and forth.

Scraps of velvet and scrim have been used for making curtains. Helen chose blue velvet to use as draperies with her white scrim curtains, because the blue matched her furniture. Measuring has not always been done carefully, or enough allowance made for hemming, so that some of the curtains have had to be made over, in order to fit the space they were intended for. Very different standards prevail as to sewing. Sarah and Dorothy, who have sewed at home, are not satisfied at all with results which suit Jenny and Helen. Bed clothes, such as sheets, comforters, mattresses, and pillows, are being made as beds are finished.

Rugs have been woven. I started one cardboard loom for weaving a small rug, and left it, with carpet roving of all colors and a ball of gray warp thread, on a table in the room. Soon nearly all of the girls were making their own looms and weaving rugs. None of the boys so far have expressed any desire for rugs, as they are all making mills, factories, and schoolhouses.

Cooking

The work in cooking this month has followed definitely the study of wheat and flour which we have made in connection with our discussions of the source of food supplies for New York City. Muffins, cakes, and cookies have been made.

Cooking Notes by Miss Hannum.

1. COCOA CAKE

This was a review of plain cake with the addition of cocoa. The amounts suggested by the class ranged from 1 tb. to 3 tb., and each cooking group used the amount it thought proper. The cakes were carefully scrutinized and the majority of the class decided they liked the cakes with 3 tb. of cocoa, both for appearance and taste.

2. HOT WATER SPONGE CAKE

The class orally reviewed their plain cake recipe, and the method. They have all eaten sponge cake, so it was compared with plain cake.

I asked, "Why is it called sponge cake?"

The class answered, "It's softer."

So I said, "What would make it more spongy?"

Grace said that sponge cake takes more eggs.

They decided to use two eggs where before they had used one. I asked for suggestions for the variations. Mary said, "If it's hot-water sponge cake, we must use hot water." Everyone readily recognized that hot water would replace the milk. Variations not suggested by the class were supplemented by me. The products were excellent.

3. BOSTON BROWN BREAD

The class had just been to a flour mill and had

seen the wheat in the various stages of grinding. They gathered about the supply table on which they found three different kinds of flour for Boston Brown Bread, and readily recognized the corn-meal and white flour, but not all recognized the whole wheat.

Next followed the naming of other ingredients. Molasses was named because the bread is brown. Baking powder, salt, milk, and crisco were mentioned. I told them that brown bread differed from muffins in having neither crisco nor eggs. They all agreed that the texture of Boston Brown Bread was much firmer and not as spongy as that of muffins or cake. This was again commented upon when their products were inspected.

I said, "We have decided to use baking powder. Why?"

Class: "To make the bread rise."

"But we also use soda. Can anyone tell why that is necessary?"

Grace and Roger said, "We used soda with molasses in gingerbread."

Proportions were decided upon and the work proceeded well. They were delighted to steam the bread instead of the usual baking.

Everyone was surprised that steaming required more time than baking but the reason was drawn from the class.

4. EXPERIMENT WITH SODA, FOLLOWING THE USE OF SODA IN BOSTON BROWN BREAD

I asked, "When we made Boston Brown Bread, what did we find out about the taste of molasses?"

Several: "It was sweet."

"Did it have any other taste?"

Douglas, Grace and Walter said it was "bitey."

"What is that 'bitey' taste?"

No one could tell.

I explained acids—weak, non-poisonous, and poisonous.

"What did we use to take out the 'bitey' acid from the molasses?"

Children: "Soda."

Then the children named several acid foods and they decided which ones they would try with soda, as some named were not in the kitchen. Molasses, lemon juice, tomato juice, and vinegar were used. They first used lemon juice and after tasting, each child pronounced it sour and "bitey." Then they added a little soda and stirred it. They exclaimed, "Oh, see it foam!"

After the effervescing ceased, they noticed the color was greener. They tasted and some got no "bitey" taste, but a decidedly salty one. Others said it was both salty and "bitey." Jenny suggested adding more soda to see if anything would happen. They did so. Some of them got more

reaction, while others got none. Those who got the reaction discovered that the "bitey" taste was gone.

These conclusions were then drawn:

1. When enough soda is used, the acid taste is gone.
2. As long as the juice is "bitey" it will foam.

Next they tried sour milk. They noticed that the reaction or foaming was not so violent.

I asked, "Why did the lemon juice foam more?"

Francis: "It's more 'bitey'."

They kept adding more soda, a little at a time, until the sour milk taste disappeared.

Next they tried molasses. The first change noticed was the color, then the foaming. They liked the flavor when only a little soda was added, saying it was sweeter.

I wanted to know, "Why is it sweeter?"

Class: "The soda took the 'bitey' taste away."

As with the lemon juice, the class kept adding soda until there was no more reaction and the molasses had a very saline taste. Then someone suggested adding lemon juice to see what would happen. They did so and found it foamed again.

"How can we explain this?" I asked them. "The molasses stopped foaming, but when you added lemon juice there was more foam."

Some could not explain, but Douglas said,

"There was more soda used than the molasses needed, so it made the lemon juice foam."

Vinegar and tomato juice were then tried in the same way.

These conclusions were summed up at the close of the period:

1. If we use acid foods in cooking and want them to lose their "bitey" taste, we add soda.
2. Too much soda produces a salty flavor.
3. The more acid the food is, the greater is the reaction with soda, and the more soda is needed.
4. The foaming will make the cakes, etc., rise when baked.

Clay

Many of the dishes and animals on which the children have been working have been fired and glazed, so that they are ready for the City. Some of the class have made little bowls or ash trays to take home.

III. Special Training

Reading

The illustrated newspaper, when it is first thumb-tacked on the bulletin board, never fails to catch a group of children as they arrive in the morning. They are eager to puzzle out the news,

and they gather in front of it asking each other, and me, words they do not know. The Tens are now finding time to print us two newspapers a week, which fit our needs much better than the one a week. This reading of the newspapers had furnished the only group reading for about a month. The children in the stronger group were gaining steadily all the time in their habits of study, and facility in reading, but I concluded that some of them might go faster, and their habits of work be checked up more easily by me, if they were held together in a group again in reading the same book. So all started the Winston First Reader together and were allowed to read or study it only in the group reading period. This added enjoyment to the reading for a while, but very soon Ruth, Francis, and Grace were excused from the group and allowed to go on with their individual reading, as they found the rate at which the other children read a drag on their own powers. Walter, Douglas, and Mary have profited most in being held together in the reading, as they have not yet gained the same independence in reading as the other members of this group.

The other group, Jenny, Roger, and Dorothy, have been reading the new Baker and Thorndike Primer together with enjoyment. They are now able to study earnestly by themselves for ten or fifteen minutes, asking each other words they do

not know, or coming to me, or to one of the children of the other group. This group did not profit so much as the other children in the pre-primer work. One of their difficulties has been in keeping the place, and they began pointing with their fingers. To obviate this, each one was given a strip of tag board to hold under the line he was reading, slipping it along to the next line as he was ready to read that. Dorothy did not care for this method of keeping the place, and very soon said that she did not need that "baby thing" any longer. So I allowed its discontinuance, introducing it again only when one of them evinced a need of it by pointing with his finger. Roger was the last of the class to finish the Winston Primer, but he is doing some reading at home with his mother, so that he is now holding his own with the slower group.

Each group has a study period before reading to me, and is now held responsible for knowing all of the words in the story assigned. Occasionally, a printed list of the words he misses in the group reading is given to each child. He must then tell me these words before his shop or free period can begin. This tends toward checking up any careless habits of study. If during a study period the group meets with many unfamiliar words in a story, as they did in "The Straw Ox" in the Free and Treadwell First Reader, the reading period

is changed into a study period with me. The words that the children have asked for are then printed on the board, and a word drill follows with races and games.

When the original stories of the class come back from the office in typewritten form, the children are anxious to read them, and work earnestly over them. Francis was able, with a little help, to read his story of "The Turtle that was Puzzled" which he had dictated two days before.

Different children have brought simple little picture books or primers from home, and have read from them well enough to hold the attention of the group for a page or two.

In preparing the plays for the marionette shows, some of the children went back again and again to the stories in the readers, in order not to leave any of the conversations or action out of the play. Under "Writing" I have given the beginning of phonetic writing on the board.

JANUARY NEWSPAPERS

Happy New Year, boys and girls.
"January brings the snow
Makes our feet and fingers glow!"
There will be a show in Grace's theater.
The ticket man is taking the tickets.
The band is playing, dum dum, dum, ting, tang, ting.

Now the curtain is pulled back.
The show has begun.
The footlights are switched on.
Oh, look at the beautiful trees and green grass.

There is a blue river and a bridge over it.
See the three billy goats on the rocks.
Listen, what are they saying?

We went to Hecker's Flour Mill.
It is on the East River.
Boats bring the wheat to the mill.
Scour, grind, grind, shake, sift.
Now the wheat is changed into fine white flour.

Language

Francis came to school one day, saying he had a play about a turtle he wanted me to write. As he told me the story of the play, I asked a question or two which he immediately followed up in the story. Francis has heard some of Kipling's stories both at home and in school this month and they evidently influence him. When he finished, I read it aloud to him, asking if he thought there were too many "ands." He asked me to read it again and he would decide whether to take some out. In this way he removed three or four "ands." The Elevens, who print our stories for us, had criticized the plentiful use of "ands" in

all of our compositions. This criticism was received with respect, and attention has been paid to it occasionally without any reminder from me.

THE TURTLE THAT WAS PUZZLED
(Dictated by Francis)

Once there was a snapping turtle and he was hunting a place to sleep for the winter. But everywhere he went there were a lot of trees and branches and sticks and leaves, and it was a kind of a puzzle to him because he had never been in that land before. Then he went on and he met an elephant and the elephant said: "Oh, you ought to be ashamed of yourself. This is the land where the elephants grow. But I will help you out."

So the elephant and the turtle went on. But it was a puzzle to the elephant, too, for he had been in the zoo quite a long time. But he had escaped from his master and ran away into the jungle.

And then they met a black man. And this was not a puzzle to the black man. Off they started down lanes which the black man had made. Then the black man said: "Mr. Turtle, here you are. Here is a place to sleep for your winter's nap." And he showed the turtle a hole in the ground, quite muddy and cosy and nice.

"Thank you, black man, for showing me a place to sleep," said the turtle. "Good-by, Mr. Elephant. You have helped me out quite a lot," and in popped the turtle into the brown mushy mud.

One shop period Grace asked if she might stay in the classroom and write a story on her new

pad. Sarah and Dorothy then also wished to do the same thing. They settled down very earnestly to write, and looked up words they did not know how to spell in readers and primers. When I was free, they asked me for words. Dorothy said she made up her story as she wrote. It shows memories of some verse read aloud from "The Posy Ring." None of the writers paid any attention to periods and capitals, but wrote freely and easily, entirely unhampered by such considerations. As each one showed me her finished story, I indicated where periods and capitals might have helped in my reading of the story, but did not stress this point at all. Later, Sarah wrote another story just for the joy of doing it. Jenny wrote one at home and brought it to school, saying her grandmother spelled words for her. The following are the first three stories which were written in school. The corrected punctuation is given, as this was the form in which each author received a typewritten copy for her loose-leaf note-book.

It was the night before Christmas. Santa Claus will come tonight to Jill's house only because she had a Xmas tree. If she did not have it Santa Claus would not come at all. Then Jack would get all the toys.

The end.

Grace.

THE SUNNY MORNING

One sunny morning a little girl went to the store to get her mother some butter and eggs. When the little girl came home, her mother said, "What have you been doing so long?" The little girl said, "It was so nice that I thought you wouldn't mind."

Sarah.

THE PURRING CAT

A little cat lived in a barn. There was a soft mat and a warm fireplace. She purred and purred and purred till she was asleep and that is the end.

Dorothy.

Toward the end of the month Helen brought a note-book to school with a story started in it about a poor man. She continued it at school, and next wrote a story about herself and a dog. She wrote day after day and started an index of the stories and of illustrations in her book.

Writing

"Thank You" Christmas letters were written by everyone on coming back to school after the Christmas vacation. Letters were written to Gordon in California in answer to one from him. All of the children, except Roger and Francis, now write short letters with ease, requiring my help only in spelling the words they do not know. Letters of invitation to the play were written to

mothers and different classes in the school. Here is Mary's letter. She said, "I love to write. That's why I wrote such a long letter."

DEAR MISS SCHRIEFER,

Please come to our play on Thursday at 9.20 the story of the Wheat. The Play will be in the gymnasium on 13 St. We went to Hecker's Flour Mill thats How we got the Play up

love from MARY

Francis said: "I am too lazy about writing. But I like to make up pictures to represent the letter, so I just put a picture of the gymnasium so they'll know all about it." He wrote his letter as briefly as he could—

DEAR MR. REBER,

I want you to come to the play 9.20 A.M. Thursday in the gymnasium Francis.

Occasionally, I have asked each of the class to write a memorandum of exactly what he had made in shop or of the stories he had read. There are practice lessons also of words all of the class need to use often in writing—*New York City, father, mother, City and Country School,* the names of the different children in the two groups of Sevens and the names of supplies to be ordered from the store. Roger and Ruth are the only careless writers of the group, Ruth because she writes a great deal and wants to write fast, and Roger, ap-

parently, because he has not been sufficiently interested to exert much effort.

Regular practice in writing at the board has continued in order to check up on writing habits and help with such hard combinations of letters as *be, br, ba, bi, wa, we, ve, ol, og,* as they come up in new words.

While the other children are writing letters or stories or orders for supplies at their seats, Francis and Roger, who write painfully and slowly, are often given practice at the board in developing a swinging motion with words they wish to write.

Lists of similar words have been made also. For instance, I wrote *tell* on the board and asked the children to write *tell* and all of the words they could think of that looked and sounded like it. At first lists grew slowly. All of the children were able to think of words like *tell*—as *sell, fell, shell,* but were not all able to write or spell them. Gradually, interest and ability grew and an eagerness to think of hard words to write, which contained the same combinations of letters. For instance, Ruth wrote *Dunnington* and *Lexington* as containing part of *sing.* Mary thought of *melon* and Francis of *skeleton* when given *tell.* Dorothy grew interested in the game of thinking of words that were alike and one day wrote at her seat, "My little Bebby had a little baby doll and a hat and a cat and a rat and a bat and some fat and

some tat." This was considered very funny by most of the group when it was read aloud. Written composition appears under "Language."

Number

Interest never lags in counting the attendance in various groups of twos, threes, fours, fives, sixes. The children answer readily also as to how many groups of two, or three, or four, or five children it takes to make our total. I have shown them how it could be written on the board if they wished to record it; for instance,

$$2 \overline{)\,11\,}\,.$$
$$5\tfrac{1}{2}$$

As I did so, I touched the five different groups of children and then Francis who was the half of a group left over.

There has been definite checking up of children who can count by 2's, 3's, and 10's, up to 100 and beyond. Some of the checking up has been done through the counting of the money in the purse and some through writing the numbers on the board. Several of the group went on to counting by 3's in columns on the board after finishing 2's. Practice in the writing of numbers is still needed. Roger, Ruth, and Francis continue to turn 6, 7, 3, and 4, backwards occasionally.

Often when supplies are delivered to us from the Eights' store I write the items on the board,

and together the amount of the bill is determined, as:

Paste	$1.00
Paper	.30
Delivery	.05
	$1.35

Most of the class in their bookkeeping now distinguish the correct places in the columns at the right of the page, for the recording of dollars, of dimes, and of cents.

Help is still needed in recording scores on the board for tenpins, in keeping straight lines of numbers, units under units, and tens under tens. In adding scores, some mistakes have come about which the class considered funny. One instance was when Roger's score was written

10
6
0

and he called the answer 70. Such very evident mistakes have served to show the group the necessity for the right placement of numbers. Tenpins is played with a much greater degree of speed than at first, although it is never played more than once a week. But there is much keener observation, and very little counting. If a large number of the pins are knocked over, a child now says the number instantly, "8" or "7." I asked Jenny

how she could know immediately, without even stopping to look at the pins knocked over on the floor. She answered, "I just saw there were two left standing so I knew there must be eight knocked over." Mary said one day, "Do you want to know how I knew how many I had knocked over?" We all answered, "Yes." She said, "Well, Walter had just knocked over seven and had three standing, and I had one more left standing than he did, so I took one off of the pins he had knocked over, and said six knocked over."

Each time, at the appointment of a new treasurer, different children are tried as to their skill in counting money. Everyone tries to count up to a dollar by different groupings of the money. Often quarters are built up first and added together.

Some papers of Thompson's Minimum Essentials of combinations under 20 were left on a table in the room, and excited the interest first of Grace and then, through her, of various others, who asked for them to work on in free periods and to take home. The six-minute time limit was of interest to those children who care especially about numbers, but none of them have yet been able to accomplish the work within the time limit.

There is continual measurement in cooking, of cup, one-half, one-third, one-quarter cup, and of pint and quart. Measurement in shop is not so

often in definite numbers, as it is in comparative or relative ones. The trimmings for the windows, or legs for the tables and chairs, demand accurate comparative measuring without calling for knowledge of the exact number of inches. The ruler was used by the girls in determining the length of the roving in weaving their rugs. Preparation of scenery for the marionette shows necessitated taking some measurements of the stage. Roger measured the floor of the stage to see if the paper on which he had painted grass would go in without touching the wires. The fixing of prices in the City has caused some work in number. (See "Play City.")

IV. Organization of Information

Discussions

After we had given our Christmas play in which the different foods on the table told their life histories, I remarked to the children one day that there was one kind of food on the Christmas table which had not talked, and asked them to think what it was. Immediately, bread was thought of. Then I asked who wished to be the Bread and allow us to ask him questions. There were several volunteers. We gave them each a turn and many questions were asked about what bread was made from, who helped in the making, and so forth. When Grace was asked how wheat

was planted, she said that the stalks of wheat were cut in pieces and planted like sugar-cane. This led to discussions which continued throughout the month of the plowing and planting of wheat, its harvesting, reaping, and transporting. I told of the large wheat-fields I had seen in California, and different members of the group talked about wheat-fields they had seen in New York and New Jersey. The big modern machines were compared with the old ways of harvesting. We learned some songs about old-fashioned millers and farmers. National Geographic pictures were used, and pictures from geographies. Chamberlain, Tappan, Carpenter, Parkins and McMurry, and Russell Smith served as references for the teacher.

We visited Hecker's Flour Mill on the East River. A guide conducted us from the docks at the mill where the boats bring their loads of wheat, to the different floors where the wheat is separated, scoured, crushed, and sifted, and finally sewed up in bags. We also saw the great engine room which furnishes power to all of the machinery of the mill. The miller gave us some wheat seeds and later, in our coffee mill, we ground these into flour.

Trips

Hecker's Flour Mill.

Orientation

Before we visited Hecker's Flour Mill, we traced the way there on the large picture map of New York City, starting from the schoolhouse, following our journey on the Seventh Avenue subway, then on the cross-town bus, and then the short walk to the mill by the side of the river. The map of New York is hung in a convenient, low place on a door, so that often a child goes to it for the pleasure of tracing a trip he has taken, or his journey home from school each day. On Roger's return from Chicago, he told us of his trip; how he had started from the Grand Central Station with an electric engine, and how the train had had to wait at Harmon, which is up the Hudson River a little way, while the electric engine was changed for a steam engine. He told us of Chicago, and of Lake Michigan, and said he did not notice any of the smells there that I had told him about. But he thought he knew the reason why, he said, because he was far away from the meat packing houses. We traced his route from New York to Chicago on the large wall map of the United States. Then different children wanted to tell of their trips during the Christmas vacation and trace them on the map. Jenny had gone to Long Island. She told us just how she had gone, from what station she had left New

York and showed us, with a little help from me, her destination in Long Island. Mary had gone to Newark. After she had described her mode of traveling there, we found Newark on the map and traced her journey. Grace had gone to Rockaway Beach. She offered to show us exactly how she had traveled there. She first located, approximately, her home on Eleventh Street, then found Grand Central Station, then the East River and finally Rockaway Beach. I told of my trip up into the Pocono Mountains in Pennsylvania, and showed where I had crossed the Hudson River, where I had taken the Lackawanna train, and then where I had crossed the Appalachian Mountains through the Delaware Water Gap.

There were several discussions of direction in connection with the play houses in the room—which side of the room should represent New Jersey and which New York City, where the apartment houses should be located, and where the stores.

Stories

From Kenneth Graham's *Cambridge Book of Poetry* rhymes and jingles about the snow, the windows and Robin Redbreast, were read to the evident enjoyment of the children. Certain verses from the *Posy Ring* have become favorites with the group. Stevenson's "Windy Nights,"

Butt's "Winter Night," Stedman's "What the Winds Bring," are asked for over and over.

"The Burning of the Rice Fields," from Bryant's *Stories to Tell to Children,* was read and asked for again. Dorothy brought Kipling's *Just So Stories* from home and asked for "How the Whale Got His Throat" and "The Butterfly That Stamped." Later "Mowgli," from the *Jungle Book,* was greatly enjoyed by the group.

Science

The class was given some time in the laboratory to enable them to practice the wiring of houses for electricity. They scraped the cotton off the wire and attached lamps to two wires strung across the room. They were asked by Mr. Paley, "Why do we need two wires for electricity?" Francis answered, "One wire for the electricity to come into and one to go out." Then Mr. Paley said, "Show us." Francis pointed to one of the wires and said, "Electricity comes into this wire of the lamp and up through the other wire attached to the lamp." Jenny added, "It goes through one wire, through the lamp, through the other wire and back again." Later, Grace and Jenny went over to the laboratory and wired the theater and post-office for the Play City. They brought these two buildings over to our room and then connected them with batteries. Francis

helped Mr. Paley make the connections for electricity in a dark closet opening out of our room, Francis doing nearly all of the work.

Grace dyed the curtains for her theater a bright red, and put them on draw strings. Dorothy had the help of Mr. Paley in putting in the elevator for her hotel with an ordinary awning pulley and string.

FEBRUARY

I. Play Experiences

The Play City

Immediately, whenever any of the boys joined the group in the Play City in the smaller classroom, the play of automobile and "cops" was added to what was already going on. One very cold day the whole group chose to study inside and play with the City buildings rather than play out in the yard. Toy automobiles began going up and down the streets, passengers were taken, and "cops" became very busy. Several shows were given and there was a party. As a rule, during a free period, only part of the group chose to play in the City at the same time. Sometimes some of the Seven B's brought their buildings in and there was even keener interest in the play, with the addition of the Woolworth Tower, Cushman's Bakery, the Piggly Wiggly Grocery Store, and the Pennsylvania Station. Ross from the Seven B's came in one day saying: "Have any of you houses to rent? I can't live in the Woolworth Building. I'd rather live in the country." The only house in the country offered him was Helen's, which he did not accept, so he went back to his own group and rented one.

Play with Big Materials

OUTDOORS

Coasting on sleds out in the icy, snowy yard has been a popular, exciting sport. Dramatic play of hunters, Eskimos, and Indians often goes along with it. The boys are much more daring than the girls and show greater skill in guiding their sleds. Some of them are thoughtful of the more timid of the girls and enjoy hauling them around in the yard.

INDOORS

On wet, stormy days we have played in the gymnasium where the children work with enthusiasm on the rings.

Under "Language and Dramatizations," there appears another aspect of "Play With Big Materials."

Drawing and Painting

ILLUSTRATING COVERS FOR LOOSE-LEAF BOOKS

As soon as a child had finished working on the marionettes and scenery for his marionette show, he was allowed to begin designs for the loose-leaf book covers, which were to hold the printed copies of his original stories and the class newspapers. The covers had been cut from whipple board in beautiful shades of blue, green, orange, and brown, and each child chose the color he liked.

Most of the children were eager for the book covers and enjoyed to the utmost deciding on the titles and designs for their books. Any medium that the owner desired was used—colored paper, paints, or crayons. In working out the titles with colored papers, the letters were cut from small squares and pasted on carefully. Some instruction was given by Mr. Zorach on the cutting and printing of letters. Some of the titles chosen were: "Dorothy's Make Believe Stories," "Helen's School Book," "Douglas' Jungle Book." When pages for the loose-leaf books were given out, illustrative work began immediately. Pictures of the children mentioned appeared, and of the different City buildings, and there were drawings of the various activities recorded. Everybody laughed at Walter, who could not resist putting some of his wonderful lions and tigers on the pages of news about the Play City.

DESIGNING AND MAKING COSTUMES FOR THE PLAY

Costumes and scenery were started for the play, "The Story of the Wheat," an account of which appears under "Language and Dramatizations." Sarah was the miller in the play and, after making the framework for the front of the mill in the shop, she tacked on cheese-cloth and painted in bricks for the walls and a window. Douglas

helped her in printing the sign "Hecker's Flour Mill," which she placed over the door. She made a little white muslin coat and miller's cap and brought some pajamas from home for trousers, so that she was dressed all in white. Ross from the Seven B's made the bake shop in a similar fashion, except that he painted it brown instead of brick color. He made a baker's cap and wore his white cooking apron. Nearly all of the costumes were cut out by the children in kimona fashion. They were sewed with colored worsted.

The wheat seeds cut their costumes from yellow cheese-cloth and sewed them up, cutting points at the bottom. They made high pointed caps of cardboard and painted them brown and yellow to resemble heads of wheat. Tassels of yellow paper were stuck in slits in the caps, which were tied under the chins with strings of yellow cheese-cloth. The children representing the rain and the wind made their costumes from white cheese-cloth and painted them various colors as their fancies dictated. Silver and gray paint was used mostly on the rain costumes. The wind costumes were painted in many different colors, green and brown predominating. The costumes of the children who took the part of the bolter, which sifts the wheat in the mill, were long, straight muslin robes. Stiff collars of cardboard held them out at the neck so that the desired cylindrical shape was given.

The reapers made their costumes from burlap. Roger sewed his up with such large stitches that in places there were gaps which showed the rough edges. He became dissatisfied with it after trying it on several times, and ripped it out, sewing it up again with much smaller stitches. Designs suggestive of machinery were painted on the reaper costumes. Spokes of wheels, tanks, nuts, bolts, and blades were painted. Black paint was chosen for the most part for these. Orange and yellow were used as a relief to this severe color after I had made the suggestion. Douglas, Walter, and Roger represented the reaping machine and in making their costumes consulted all the pictures of harvesters, reaping and threshing machines, that they could find in the geographies and books about the room. They drew several pictures of machines, and some designs on paper, and on the board, before they tried them on the costumes.

In painting the designs, the costumes were slipped over the board of the easel, which made the painting very easy.

The Sun made her costume from orange-colored cheese-cloth and a head-dress of cardboard with points cut in front to look like the rays of the sun. She covered the cardboard with gold paper. The children, who represented the barge which carried the wheat to the mill, made two separate frames in shop which they then covered with cheese-cloth.

These were painted to look like the two sides of a barge, showing the door through which the wheat was emptied, and the cabin. In the play the two children stood in between the two sides of the barge holding them, and furnishing the motor power. The barge was large enough to hold also the three children who were the seeds of wheat. The horse in the play gave the greatest amount of pleasure to the children in the audience and also to the actors. Two of the boys from the Seven B's made the costume. One of them acted as the head and front legs of the horse, and the other as the back and hind legs. The boys, working together, first drew the head of the horse, on cardboard and cut it out, and then with some help from Miss Hughes covered it with brown lining. They made a slip of the brown lining and sewed it on to the horse's head. When this was put over the children's heads and backs, it formed the back and sides of the horse, leaving their legs showing. They made the mane and tail from rope which they unraveled. The horse was sufficiently life-like to frighten a little four-year-old in the audience.

There were many conferences and consultations over the costumes. Sometimes, when difficulties arose, children from both groups held these by themselves, but more often Mr. Zorach and the two

teachers were asked for advice. The making of the costumes proceeded in a leisurely fashion.

Many free periods were devoted by some of the children to the sewing and designing of their costumes. Others not so interested in this phase of the work, or those having costumes the making of which did not require a great deal of time, spent only their drawing periods in this way.

Mary said, "I like to give plays, because I like to make costumes." She was very kind to Francis in sewing up his hem for him after he had struggled with the side seams. Ruth displayed a great deal of patience and perseverance in making her rain costume. She sewed the wrong edges together at first and when she found out her mistake ripped it out, and immediately began sewing the proper sides together. I said to her: "You must like to sew very much, Ruth. You have worked such a long time now. Why don't you put it away for another day?" Ruth replied: "I don't like to sew. I just do it to get it done." And she stayed with it until the end of the period. Jenny found that her haphazard way of working brought with it a great deal of unnecessary trouble when it came to making caps. She did some very careless measuring for her wheat cap and had to cut out many patterns before she finally succeeded in getting a cap that fitted her head.

With all of this work in painting and drawing

which was stimulated by the making of books and costumes, some of the class still found time to carry on their own individual schemes. Large paintings of boats, trains, houses, and animals were worked on during free hours or in the drawing period. Under "Orientation" I have told of the drawing of maps.

II. Practical Experiences

Shop

The children made the framework of the mill and of the bakery and barge for the play, in the shop. They worked out the measurements before going to shop. The bakery was made with three sides and proved too complicated for the children working by themselves. So the mill was made in a simpler fashion. Only the front side was attempted. It was supported then by two braces, and proved very satisfactory.

Regular work on the City buildings has gone on. Ruth, without my knowledge, pulled off the shingled sloping roof of her hardware store which she had worked on so hard and then put a railing around the top. She explained that she did it because she needed the extra room it gave her on the top floor. She also added another room to her house by nailing a small box to the side. Furniture is being made for all of the houses, and shelves and counters for the stores.

Sewing

I have told about the sewing involved in making the costumes for the play under "Drawing and Painting."

Cooking

The work in cooking has been partly suggested by our study of wheat.

Cooking Notes by Miss Hannum

I. OATMEAL COOKIES

Again plain cake recipe was used as the foundation. Some suggestions from the class were as follows:

1. Cookie batter is stiffer than cake and therefore we must use either more flour or less milk.
2. Oatmeal must be used, half flour and half oatmeal.
3. Cookies can be rolled out and cut or dropped by spoonfuls.
4. Oatmeal cookies are brown so molasses or brown sugar is used.

Neither spice nor the addition of more fat was suggested.

I spoke of cinnamon for flavor and the class suggested the amount. I also said that a stiff cookie batter needed more fat and the class suggested doubling the amount.

2. VALENTINE CAKE

The children have improved so much in their technique that in the same period they were able to make the icing and to ice the cakes. They used pink coloring and heart-shaped cutters. Scarcely a child was hesitant about proportions or method of mixing except those who had been absent many times. The enthusiasm was very high and everyone worked diligently. Suggestions for the icing ingredients came from Grace, Jenny, and Douglas. Only once before had they had the experience of testing syrup density by dropping some in cold water. They remembered it and tested very well.

3. WHITE BREAD

Once, the year before, the class had made bread. They remembered that flour, salt, milk and yeast were used. Sugar and shortening were forgotten. The necessity for lukewarm temperature had to be recalled, also the method of testing. There was considerable discussion of yeast and the need for exactness in its use. In kneading the dough, some of the children manipulated it fairly well. Everyone succeeded in shaping a loaf without assistance.

4. CORN MUFFINS

This recipe again was based on the plain cake recipe. The necessary variations were readily

suggested,—for example, that muffins are not as sweet as cake so less sugar must be used, also corn muffins must contain corn-meal. More suggestions were made as to the proportions; half corn-meal and half white flour, and only 2-4 tb. of sugar. Melting the fat instead of blending it with the sugar, was also decided upon by class discussion. Otherwise, they followed the plain cake recipe. The muffins were, without exception, very good indeed.

III. Special Training

Reading

The younger group has been gaining steadily in their power of application. Their span of attention is noticeably shorter, however, than that of the children of the stronger group. Roger's mother has reported that he asks her regularly each night at home if she will listen to him read. He reads with enjoyment for a short while, but does not care to stay with it long. Often, after a group study period, I have printed the words that the children have asked me for on the board and a word drill has followed. With the stronger group sometimes the reading period has been devoted to individuals coming to me with stories they wished to read. As a rule the three less independent children of this group have read together. The pages which are copies of the news-

papers and original stories for the loose-leaf books (*see* "Drawing and Painting") are always welcomed when they are sent over from the printing press by the Tens. No one is allowed to add a page to his book until he has shown his ability to read it. Occasionally, this means a period of study for the younger group.

A set of Milton Bradley phonetic drill cards left on the table at the end of the month attracted a group of children who began practising with them. Later, I tried out individuals with the cards. The better readers, such as Grace, Francis, and Walter needed almost no help with any of them.

Mary and Douglas were slower about recognizing the combinations. The three children who are the slowest readers were able to get only the simplest words without help.

The work in phonics also appears under "Writing."

FEBRUARY NEWSPAPERS

We are going to have a play, "The Story of the Wheat."

Jenny is a wheat seed.

Martha and Mary are wheat seeds too.

Helen is the sun.

Ruth and Nancy and Jean are the rain.

THE STORY OF THE WHEAT—SOME PROPERTIES AND CHARACTERS

The wheat seeds are in the ground.
Shine, sun.
Make the wheat grow.
Come, rain, help the wheat to grow.
Pitter patter, pitter patter, now the wheat is tall.
George and Dorothy are the wind.
OO, OO, the wind begins to blow.
Edwin is the farmer.
He drives his horse.
Billy and James are his horse.
The horse almost runs away.
The farmer says "whoa."
Then he looks at the wheat.
He says, "It is ripe enough to cut."
He drives the reaper into the field.
Brr, brr, brr, goes the reaper.
It cuts down the wheat.
Douglas and Roger and Walter are the reaper.
The barge takes the wheat to the mill.
Jane and Grace are the barge.
Sarah is the miller.
She takes the wheat and puts it in a bolter.
The bolter is Mary and Francis.
The bolter sifts the wheat. It is changed into flour.
The baker is Ross.
He makes bread out of the flour.
Then the little girl, Jane, buys the bread.

Helen is making her costume for the play.
She will look as bright as the sun.
Jenny has cut out her costume.
Everybody must work hard.
Who has made a song for the play?
Francis and Douglas made this song.
"Pitter patter, the rain is coming down—
On the tops of wheat stalks high,
Bending the wheat quite low down.
Even the grass and even the flowers are bending too.
Pitter, patter, the rain is falling.
Down, down, down."

Language and Dramatizations

THE PLAY CALLED "THE STORY OF THE WHEAT"

Its conception was really in the last week of January, but on account of many illnesses and absences it was not given until March 15, although it could easily have been ready the last week of February. For convenience sake it has been written up as developing only in the month of February.

Following our trip to Hecker's Flour Mill, our discussions of the sowing, planting, and harvesting of wheat, and later our visit to Cushman's Bakery, I reviewed for the children one day the life history of a grain of wheat. I made the story of the wheat as vivid and dramatic in the telling as I could. On finishing I said, "Who wants to be

the grain of wheat?" Instantly, Jenny was down on her knees, all curled up, representing the wheat seed down in the ground. Soon Helen was shining on her as the sun, the farmer came out wishing for rain, the rain fell, the wheat grew, a great machine came and cut it down, and it was sent to the mill. There was such spontaneity and pleasure in the dramatization that I suggested asking the Seven B's to join with us and play it. The Seven B's needed no urging. We showed them how far we had gone in the dramatization, and they went on and developed the story, from the time the miller receives the wheat until the little girl comes running in to the bakery to buy a loaf of bread. They contributed also the idea of having the wheat brought to the miller in a barge, instead of in a train as we had played it. The two groups enjoyed working together. Conversations and parts were changed continually. Sarah, who had been very shy in the Christmas play, took the part of one of the wheat seeds one day and entirely forgot herself. As she uncurled down in the ground and tried to push her way out she said, "Oh, gosh, I wish this stone were out of the way." Helen, as the sun shining down on the wheat, had little to say, so I said to her, "Perhaps you might sing a song of the sun." She hummed a little then, and later she came to me with the words of her song, and asked me to write them. Then she made an

appointment with Miss Hubbell for a free period and fitted the words to music. Great interest grew then in writing songs for the play, until all of Miss Hubbell's time was taken up. The words for the songs came very easily and spontaneously. Occasionally, the children working on them changed the wording as the completed verse was read to them. Often the first wording was sufficiently satisfactory, until the attempt was made to set it to music. Then the rhythm of a few of the lines was changed, because the child himself felt the difficulty involved in fitting the words as they were to music. Several times a child who wrote a verse for the play did not want to set it to music. But there were always other children who did.

The group had been learning songs of millers, bakers, farmers, and wheat with Miss Hubbell and discussed singing these in the play. But gradually so many songs were written by the children themselves that only one song, not written by them, was used in the play. This was Christina Rossetti's "Who Has Seen the Wind?" All of the original songs were learned by the whole class, who sang them as a chorus during the action of the play.

Miss Doing, the rhythms teacher, was told of the play that was springing up and she allowed the children to play it and work at it in rhythms

periods.[1] All of the dancing was done with bare feet. Sometimes each child in the class chose a part, playing he was the wheat unfolding down in the earth, the rain going pitter, patter, the wind blowing, the barge going with a surging motion across the river, the horse pulling a heavy load of wheat, or the bolters shaking and sifting the wheat. Few suggestions were given by Miss Doing. Most of them came from the children. She helped them, however, to get the feeling of the movement and to see the value of serious and steady effort. The melodies of the songs composed by the children were used as a basis for all the accompaniments throughout the play.

The costuming and scenery have been described under "Shop" and under "Drawing and Painting."

The following is an account of the play as it was finally worked out, and given for the rest of the children in the school and for the fathers and mothers of the Sevens.

The Story of the Wheat

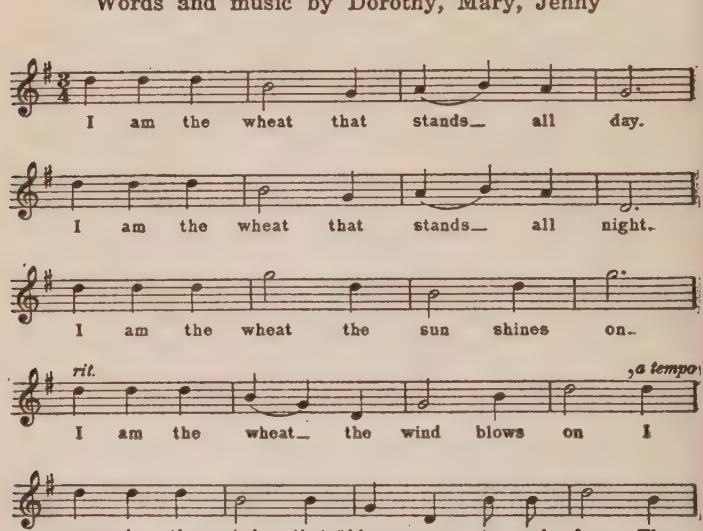
The wheat seeds (Jenny and Mary) are curled up on their knees in the middle of the gymnasium floor. Music is played as they slowly unfold, rise

1 Two periods a week were devoted to rhythms in the gymnasium. (*See* "Program," Appendix A.) Unfortunately, no notes of the regular work done are available for this record.

and stretch their arms high in the air. Then the children all sing the song of the wheat.

THE WHEAT SONG

Words and music by Dorothy, Mary, Jenny


I am the wheat that stands all day.
I am the wheat that stands all night.
I am the wheat the sun shines on.
rit.
a tempo
I am the wheat the wind blows on I
sway in the wind that blows me to and fro, The
rain goes pit - a pat, pit - a - pat!

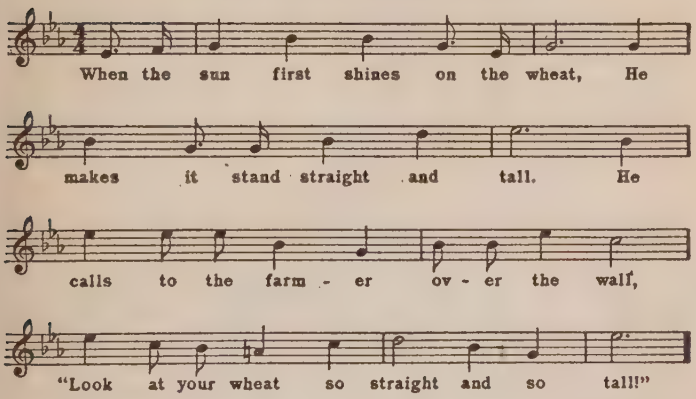
The wheat stalks sway as the song says, "I sway in the breeze that blows me to and fro."

The sun (Helen) now comes out and begins to shine on the wheat to the accompaniment of the "Sun and the Wheat Song." Helen walks in and

out among the wheat stalks, shining on them with her golden head-dress and her smiling face, while the children sing the song:

THE SUN AND THE WHEAT

Words and music by Helen


When the sun first shines on the wheat, He
makes it stand straight and tall. He
calls to the farm - er ov - er the wall,
"Look at your wheat so straight and so tall!"

As the music to Rossetti's "Who Has Seen the Wind?" begins, the winds (George and Dorothy) come blowing into the wheat-field. Trailing silken scarves billow behind them. They bend the wheat over as they swoop in and out among the growing wheat-stalks while the children sing:

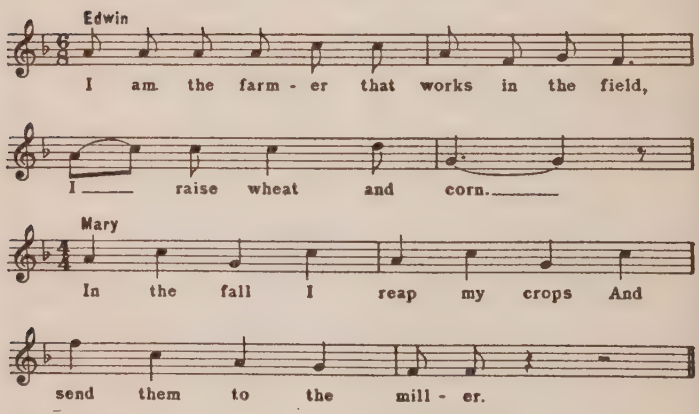
Who has seen the wind?
Neither I nor you.
But when the leaves hang trembling
The wind is passing through.

Who has seen the wind?
Neither you nor I.
But when the trees bow down their heads
The wind is passing by.[1]

As the wind subsides, the farmer (Edwin) comes out in overalls, rubber boots, and flopping old straw hat, looking the wheat over and anxiously peering up at the sky. The chorus sings the song of the farmer:

THE FARMER

Words and music by Mary


Edwin
I am the farm - er that works in the field,
I raise wheat and corn.
Mary
In the fall I reap my crops And
send them to the mill - er.

Then, to the accompaniment of "The Song of the Wheat and the Rain" comes the rain (Ruth, Nancy, and Jean). They shake rain-drops from

[1]Music by Alys Bentley.

their finger-tips and skip with knees bent high and their bare feet going pitter-patter.

THE SONG OF THE WHEAT AND THE RAIN

Words by Francis and Douglas

Music by Douglas and Sarah

Lightly Sarah
Pit - ter pat - ter, pit - ter pat - ter,
Douglas
rain is com - ing down
On the tops of wheat stalks high,
Sarah
Bend - ing wheat quite low down.
Grass and flowers are bend ing too.
Pit - ter pat - ter, pit - ter pat - ter,
Douglas
rain is fall - ing down, down.

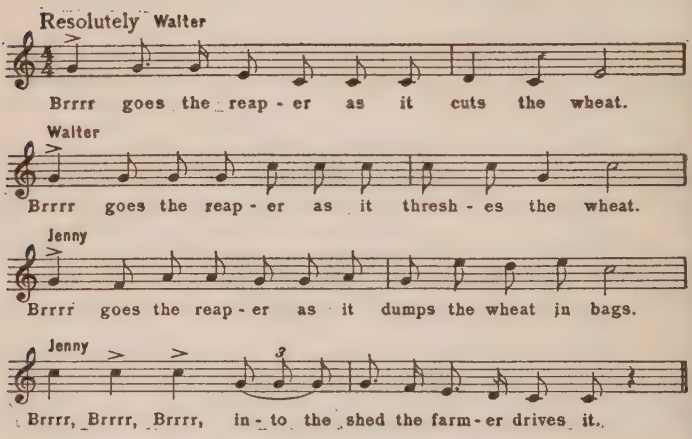
Then along comes the farmer driving the reaping machine (Douglas, Walter, and Otto), which moves in a stiff mechanical way. While the chil-

dren sing "The Reaper's Song," the reaper touches the wheat with its sharp blades cutting it, and it falls over. This is the song:

THE REAPER'S SONG

Words by Walter

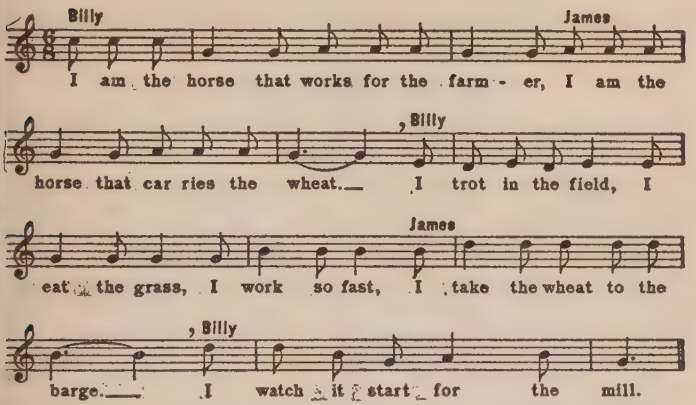
Music by Walter and Jenny


Resolutely Walter
Brrrr goes the reap - er as it cuts the wheat.
Walter
Brrrr goes the reap - er as it thresh - es the wheat.
Jenny
Brrrr goes the reap - er as it dumps the wheat in bags.
Jenny
Brrrr, Brrrr, Brrrr, in - to the shed the farm - er drives it.

Then out comes the horse (Billy forming the head and front legs and James the back and hind legs) driven by the farmer. The horse prances and paws as the farmer gathers up the wheat and puts it in the "pretend wagon." Then he drives the horse which now has to pull to carry the heavy load of wheat to the barge. Meanwhile, the children have been singing "The Horse's Song."

The Horse's Song

Words and music by James and Billy

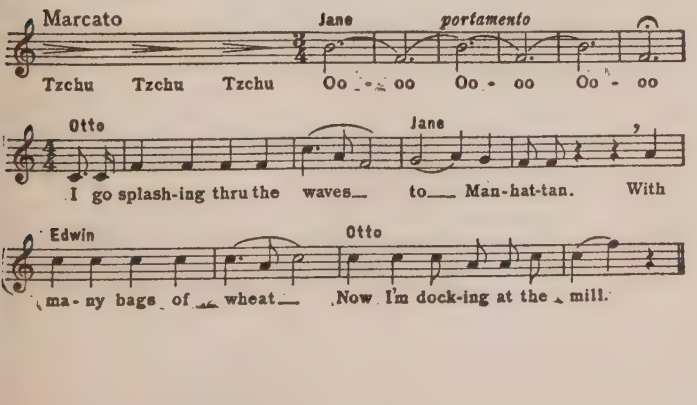

Billy
James
I am the horse that works for the farm - er, I am the
Billy
horse that car ries the wheat. I trot in the field, I
James
eat the grass, I work so fast, I take the wheat to the
Billy
barge. I watch it start for the mill.

When the wheat has been loaded on to the barge, the barge goes with a smooth surging motion up to the door of the mill. The children sing, "The Barge's Song."

The Barge's Song

Words by Jane and Ross

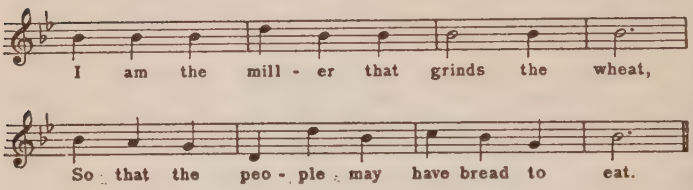
Music by Otto, Edwin, and Jane


Marcato
Jane
portamento
Tzchu Tzchu Tzchu Oo - oo Oo - oo Oo - oo
Otto
Jane
I go splash-ing thru the waves to Man-hat-tan. With
Edwin
Otto
ma - ny bags of wheat Now I'm dock-ing at the mill.

The miller (Sarah) comes out, unloads the wheat from the barge, and carries it into the mill while the children sing "The Miller's Song."

THE MILLER'S SONG

Words and music by Sarah



While the barge moves back to its starting place to the accompaniment of the song of the barge, the chorus keeps up a "swish, sw, swish."

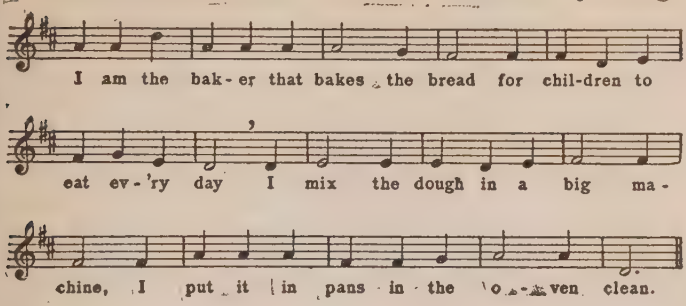
The miller then empties the wheat into the bolter (formed by Otto, Mary, and Francis holding hands in a circle). The bolter sifts and shakes to an appropriately jerky variation of the accompaniment of the song of the miller until the wheat finally lies crushed on the floor. (Here the three little girls, who are the wheat, throw off their tasseled wheat caps.)

The horse is driven out once again. The flour is taken from the mill and delivered to the little bake shop.

As the baker (Ross) comes to the door of the bakery, the chorus sings "The Baker's Song."

THE BAKER'S SONG

Words by Ross Music by George


I am the bak-er that bakes the bread for chil-dren to
eat ev-'ry day I mix the dough in a big ma-
chine, I put it in pans in the o-ven clean.

A little girl (Jane) then comes skipping up to the bakery and hands the baker some money. He gives her a loaf of bread which she places under her arm and then skips off with it.

One day of the last week in February during which there were only four of the group present (the others being excluded on account of exposure to mumps), I asked the children to pretend being the different people who help in the making of a loaf of bread. I wrote as each child chose his part and told his story. Walter was so full of the spirit of it that he had to be checked several times to give Douglas a chance. The following is the account which came quickly and spontaneously. A few "and thens" were eliminated from it by the children after hearing it read aloud. "Soon" was substituted in one place for "then."

ALL THE PEOPLE WHO HELP MAKE BREAD

Grace—I am the farmer. I will plant the wheat and make it grow. I will cut it down. I will take it to the train.

Walter—I am the track builder, that lays out the tracks and puts up the signals, so that the trains can run and carry the wheat.

Walter—I am the engineer that runs the train that lets off the steam, that rings the bell and minds the signals, whatever they say. I run the engine that pulls the cars that carry the wheat that comes from the station at the farm, and never gets late at the mill.

Maude—I am the captain that steers the boat that carries the barge, that holds the wheat, to the mill. I blow my whistle, "toot toot." I am making my boat go close to the mill so I can dump my wheat.

Douglas—I am the miller, that makes the flour so that the baker can make the bread. I scour the wheat. I take the coats off. I grind the wheat and sift it in the bolters. Then when it is fine white flour I put it in bags. I sew them up. I let them go down a chute and fall into a truck. Then the truck starts off to the baker.

Walter—I am the baker. I put the dough in the big machine. Then I take it out and spread it in a pan so that it will rise. I put it in a big oven and when it is done I take a big flat shovel and take it out. Then I have some brown bread. I take it up into the bakery. Soon a lady comes along and buys three loaves for thirty-five cents. Then she goes home and cuts off a slice and butters it and gives it to her little boy. He eats it up

and says, "Thank you, Mother. Where did you get this good bread?"

Writing

Many letters were written to children who were out of school on account of the mumps or the "flu." Here is a letter of Sarah's, showing what use she makes of punctuation.

DEAR HELEN,

I am very sorry that you are sick. We need you for the sun in the play and Thursday we cooked Valentine cookies and you better hurry up otherwise you will miss your part in the play.

Love from SARAH.

Several of the absent children answered the letters. These answers were received with a great deal of pleasure.

Letters to mothers were written, and business notes to the Eights, ordering supplies. There have been several lessons a week at the blackboard in order to keep up the swinging motion in writing and to secure better form. Much of this has been a continuation of the phonetic writing. Sometimes such a word as "out" was written on the board and the children told to try different combinations of the letters with it and see how many words they could make. Sometimes each child chose a word to write and made as many as he could that were similar. Then he was asked to

read off his list or perhaps just two of the most interesting ones he had been able to think of. Occasionally, I dictated lists that contained like combinations and the children wrote. I kept in mind continually the words that were being asked of me in the reading and writing periods, and gave these and words containing the same combinations. This period is always a short one of ten or fifteen minutes with everybody writing at the board and everybody concentrating on his own work. It has been very helpful and interesting, both to the children and to me, in showing up individual weaknesses and abilities in the formation of letters and combinations of letters, in speed in writing, and in the power of recognition of sounds and combinations of sounds.

Number

There has been an increased interest in counting. The attendance is counted by any grouping the child counting desires to make. There is continual practice in counting by 3's and 4's. It is always my patience, not the children's, that is taxed by the length of time taken for counting the attendance in the morning. There is often an unsatisfied child or two who has a different grouping he would like to make. Because there has been this interest in counting, time has been taken for it, and children working at the board have been

checked as they counted up to 100 and beyond in various ways. Nearly all have been checked off, counting by 2's, 5's, 10's, and many by 3's and 4's. Francis and Roger have improved in their ability in writing numbers, and Francis, whose interest in number heretofore has been at the zero point, has begun writing numbers at home and bringing them to school. In fact, several of the children have been working with number at home. Mary brought in a paper on which she had counted by 9's, 11's, 12's. She said 9's were so easy, she had found, because the number grew one smaller each time as you counted up. A few of the children, Jenny and Sarah and Grace, have kept up an interest in trying to reduce the amount of time it takes them to work out the combinations in the Thompson Minimum Essentials papers. They have accomplished the first paper in the required amount of time. Several of the children, including Roger, asked for one of these papers to work on when they were excluded from school a week on account of exposure to mumps.

In keeping track of the money in our treasury and in paying bills there has been continual practice in the counting of money. The children have enjoyed finding all sorts of different ways of counting to $1—by half dollars, and by quarters, putting nickels and dimes together in piles to make quarters, and by 5's and 10's, sometimes

putting two nickels together to make the 10, or a nickel and five pennies. Douglas and Walter become confused in counting, if they have been counting by quarters and dimes, for instance, and suddenly must add on nickels or pennies, so they are being given extra opportunity for practice.

"Ring Toss" has been played several times, each throw so far counting 5. Care has been taken in writing the scores on the board, to keep units under units and tens under tens.

IV. Organization of Information

Discussions

Our discussions throughout the month centered around the making of a loaf of bread. After we had visited a mill and a bakery, we discussed the many different people who helped in the making of a loaf of bread. The transporting of wheat on boats and trains from the farms, its storage in big grain elevators, the changes it went through in the mills until it was made into flour, its passing into the hands of the wholesalers, then of the retail groceries and its purchase by bakers, and by housekeepers, were the topics of interest. One period we made a list of the things we had discussed that had to do with wheat: planting, harvesting, weather, enemies, transportation, elevators, mills, bakeries. Then I asked the children if

they would like to try to find something more about these topics for themselves in books. They said, yes, they would like to go over to the library and find things in books there the way they had seen the Eights doing in their study of rubber. I replied that there were many books in our room in which information about wheat might be found and that before going to the library each child should know first exactly how to go to work in hunting for what he wanted in books. Copies of Tappan's *The Farmer and His Friends,* Chamberlain's *How We Are Fed,* Carpenter's *How the World is Fed,* and several geographies of Smith and of McMurry were given to the different children. Some of them immediately turned to the indexes. Everyone was able to find something on wheat, if only a picture. Each child who read anything needed individual help, in getting the information except Helen. Many discussion periods were taken up in the preparation of the play, "The Story of the Wheat," which is given in detail under "Language and Dramatizations."

Orientation

Grace took a short trip to Florida and when she came back showed us on the map how she had gone and explained why she went by rail rather than by boat. She described to an eager audience her trip and her visit. She told us she was so

fond of Florida that she cried when she had to come back.

Several children had seen the moving picture of "Hunting Big Game in Africa," and they talked about the map of Africa which had been shown in the picture. We then hunted up Africa on the world map and on the globe, and discussed its direction from New York and the route we would take to reach there.

Walter and Douglas, at my suggestion, together drew a diagram of our two school buildings showing visitors how to find their way from our classroom through the tunnel to the gymnasium in the other building. They indicated stairways and passages leading to the different rooms. They went beyond what I had suggested and showed the Sixth Avenue elevated road in the distance. Some checking up was done with the group on the location of the places that have been talked about over and over in connection with our study of food supplies, and with the trips various children have taken, or class trips. Games were played with maps up on the board in front of us, or down on the floor, until the children who had shown that they were not yet familiar with the location of certain places were able to point them out. About half of the class needed no help at all in finding all of the places about which we had talked most. New York, Florida, the Atlantic Ocean, Chicago,

the Great Lakes, the Rocky Mountains, California, and the Pacific Ocean were located on the United States map. Then on the large map of New York City, Manhattan, the Hudson River, the East River, the New Jersey Coast, Long Island, and Staten Island were all pointed out. Their various directions also from our schoolhouse were discussed.

Stories

"The Queer Little Baker Man," from Bryant's *Stories Children Need,* was read to the children and asked for again. "Shingebiss," a Chippewa Indian Tale in *My Bookhouse,* Bk. I, also was enjoyed. I told several stories: "Master of All Masters," from the *Tales of Laughter,* by Wiggins and Smith, was asked for several times, and some of the phrases in it repeated with relish out on the playground. A South African tale, "How Brother Rabbit Fooled the Lion," retold by Ellen Babbit, brought bursts of laughter and a request later for its retelling. "The Ogre and Jackstraws" from David Starr Jordan's *Book of Knight and Barbara* was a favorite also.

Science

Mr. Meister asked the children if they would like to make some thermometers for their City houses. They answered that they would. One of

them took the thermometer down from the wall and a discussion followed of the use of a thermometer, how to read it, and what is in it. Mr. Meister poured some mercury out into a glass and allowed each child to feel of it. Roger said, "That's not very heavy, but only heavy for the little bit." Mr. Meister told them that as mercury was very expensive they could make their thermometers with kerosene which had been colored with red ink. He melted the end of a glass tube and blew it until there was a ball at the end. When he tried to pour the red kerosene in the tube it would go down only a little way. The children said there was air in the tube that wouldn't let the kerosene down. When Mr. Meister held the tube in his hot hand the kerosene was pushed up still further. Douglas said, "The hot air pushed it up." Grace added, "Warm air spreads, pushes it up." Mr. Meister said, "Yes, warm air spreads out and takes more room." He then heated it over the flame. The children watched the air bubbles escape as they were pushed out. Then the red liquid fell to the bottom of the tube. The tube was closed at the top by heating it. Later Walter finished it up in shop by fastening it to a board and marking the board in the same way as the board of the thermometer in the laboratory was marked. Several of the children attempted thermometers later in free periods in the labora-

tory with Mr. Paley, but it was a task requiring rather too exact and careful work for most of the group.

Later, Mr. Meister illustrated the expansion of heat with another experiment. He used an iron ball and ring. He showed the class that the ball exactly fitted in the ring. Then he warmed the ball, and the children saw that it would not go through the ring. When he heated the ring, however, the ball passed through.

MARCH

(Easter vacation the last week of March.)

I. Play Experiences

The Play City

The population of the Play City has been increasing almost daily. One tiny doll after another has been added to the families living in the houses. Roger is the only boy so far who has brought one, and his is a monkey-faced toy dressed in a fur suit. The children borrow it sometimes for a father. There are no longer enough seats in the theater to hold all of the inhabitants. This influx of population has created a new industry, that of the manufacture of clothing. Formerly, this was attended to by individuals as they added to their families. But Sarah began to show such ability and aptitude for dressmaking that she was appealed to continually. Finally, she said, "I like to make dresses, but I will have to charge for them. It will be $5 for a mother doll's dress and $4 for a smaller doll's." Then she began making hats and bonnets at $1 apiece. In almost no time she had presented Helen with a bill for $16, for the making of one mother's dress, two children's dresses, and three hats. Then Helen decided to go into business with her. They changed one of the rooms in Sarah's butcher shop into a dressmaking shop.

They each brought quantities of scraps of silks, velvets, and cotton to school and allowed their customers choice of materials. Grace, upon seeing this interesting trade spring up said: "Sarah is making too much money. I am going to be a dressmaker, too." Soon the shop periods saw most of the girls sewing away at dresses, instead of working on buildings. Ruth, by careful planning, still found time to go to shop and also to do most of her own sewing. The dolls' dresses for the most part are neat in appearance, but have no hems, and either no sleeves at all or kimono sleeves. Bills are promptly paid with toy money, which the children are making. Jenny began complaining that it took all of her spare time to make enough money to pay her bills. She has a large family of dolls which have to be clothed.

The City library is adding to its collection of books all the time. It has received several contributions. Books have been made at home and donated to Mary. All of the books contained illustrations and stories, or rhymes. Mary brought several, in each of which was printed one of the songs from the Wheat play.

As soon as my restriction on giving marionette shows without some previous preparation in making scenery and marionettes was removed, shows were given every period of play in the City. These impromptu plays were representations always of

little daily events in the lives of the children—getting up in the morning, being put to bed at night, eating dinner, being sick, going to a party, and so on. A delighted audience of four or five children never failed to attend. They were always accompanied by their dolls who filled the tiny seats of the theater. The dialogue carried on for the marionettes by the child giving the show, brought gales of laughter. The audience of dolls carried on its part also. Often one, impelled by his mother, reached across another doll to whisper, or left its seat to sit by a friend. The interplay between the stage and audience has been perhaps the most interesting part of the performance.

The boys have brought tracks to add to the tracks owned by the school and have run them through the Pennsylvania Station. Often, some of the boys from the Seven B's have joined in the City play and much work has been done in switching engines and trains and in backing them up to the factory. So far no connection is made in the play between the houses and theater and the trains.

Play with Big Materials

OUTDOORS

Many unorganized running games have developed with the departure of the snow. Bucking

bronchos, steers, cowboys, and hunters have made their appearance again and again. The exciting play of fire engine crops up. Although the girls have not failed to join in these running games, they do not neglect the yard blocks and are faithful to their domestic dramatizations.

Drawing and Painting

Pictures of farmers, of wheat-fields and silos, and of farm machinery were painted and drawn. Sarah painted a picture of a mill that won for her the approval of all the class. Following our trip to the Metropolitan Tower, I suggested pictures with the result that many were drawn of the Tower or of things seen from it. Ruth distinguished herself by her careful drawing of the Tower and of a Fifth Avenue bus. Douglas made an elaborate drawing of Brooklyn Bridge as it looked from such a height. After working at it awhile he asked some question about its shape, where it touched the shore, that no one could answer. So a picture of it was found which helped him out. Walter made a diagram of the Tower as it would look from an airplane. Grace produced a very good drawing of an automobile going along Fifth Avenue. Besides these, there were some careful drawings of the Metropolitan itself. Roger continued work on a map of his farm out in the country which he had begun in February. He

took great pleasure in putting in the house and barn and chicken coop, grove of trees, neighbors' houses, the country roads, two lakes, a brook and a dam, and finally added a rabbit running along the road. When his map was finished, it was tattered and torn. He had worked on it intermittently from February 3 to March 22, and always of his own accord.

Designs and illustrations have been worked on for the covers of the loose-leaf dictionaries given each child. Illustrations of pages in the individual reading books also have been drawn continually.

II. Practical Experiences

Shop

The factory and mill have been finished. They are equipped with elevators, derricks, and boilers. Walter and Francis were reported several times by Mr. Reber as wasting time in shop. On such occasions they were deprived of their free periods. Most of the girls have been so busy sewing for their dolls that they have done little shop work. Every little while, however, some one has felt the need of more furniture in her house or store, and has left her sewing. Grace made a tree for hanging up the dolls' coats and hats, and after that hat trees appeared in many of the houses.

Sewing

The making of doll clothes has been mentioned under "Play City."

Cooking

The fruit and vegetables buried in November were dug up by the children, but most of them had been frozen and had rotted, although the hole had been dug two feet deep. They decided a greater depth would be necessary if preservation of fruit or vegetables were attempted again in that particular soil.

1. BAKING POWDER BISCUIT

Cooking Notes by Miss Hannum

Some of the children suggested putting sugar and vanilla in the biscuit batter as they had done in cake, but Grace and Douglas said, "No, biscuits aren't sweet and don't have flavoring." Several of them remembered that the fat was introduced by cutting it into the flour. The class suggested using 2 tb. of fat as they had done in cakes and muffins. They were told that 3 or 4 tb. might be used so each cooking group of two used 2, 3 or 4 tb. as they wished. They decided that biscuit dough was thicker than cake batter so they would use less milk. They were cautioned to handle the dough as lightly as possible to insure good biscuits. The year before they had been

given the same instructions, but their products now were much superior.

2. LEMON JELLY

The class had asked to make lemon jelly, so it was suggested that they make it for the lunch room. The idea of cooking for all the children appealed to them. They were familiar with jello and gelatine. I explained the difference. The class suggested using all the ingredients, but I gave the proportions, as I wished to emphasize that accurate directions must be followed. They wished to add fruit and did so, using bananas scraped, and oranges. The next day they took great pride in telling the children who came in to lunch that they had made the dessert.

3. GINGERBREAD MEN FROM HOT WATER GINGERBREAD

First, the children were asked why gingerbread was brown in color, and when molasses was given as the reason, they were asked what they used with molasses to make the cakes rise. They all said, "Soda." The class said that molasses would take the place of sugar, and decided to use the same amount of this as they had used of sugar in plain cake. Then the amounts of egg, crisco, flour, and soda were based on former recipes. The children spoke of using the same amount of liquid

as they had used previously. I said, "Is there anything else in the gingerbread that is liquid?" Class: "Molasses." Then I asked, "What do you think about the amount of hot water we had better use?" The Class decided to measure ½ c. of water and use only as much as they thought they needed. To make the gingerbread men they made the batter thicker, and shaped the figures as they would in clay modeling.

Clay

Miss Levin has made a report on the work which the Seven A's have done with her. They have had discussions about the different kinds of clay and where it came from. Miss Levin told the class the clay they were using was earthenware clay, that it was made by the crumbling of rocks, which were carried down mountain streams and mixed with sand and shells, and that it settled to the bottom of lakes. She told them our porcelain dishes are made from a clay, called Kaolin, which has never been carried by mountain streams or mixed with sand and shells. They talked of the different colored clays: that which turned red or orange after firing showed it contained iron, and that which came out of the kiln white had carbon in it, as it contained a quantity of decayed plants. When someone asked what the glazes were made of, Miss Levin explained that glaze was ground

glass and colored with such minerals as cobalt and copper.

Notes by Miss Levin

HABITS OF WORK OF DIFFERENT CHILDREN

Sarah—Has developed a good technique, working with great interest, independence, and concentration, displaying nice little ideas of her own, although she is not so imaginative as others of the group. She has made a statue of a man for one of the parks of the Play City, a bowl, an ash tray, and a pin tray.

Dorothy—Imaginative but flighty—has not concentrated on her work. She has made a little jewel box with a fitted lid.

Francis—Has seldom chosen to work with clay, so his technique has not developed, but his habits of work have been excellent. He has made a boat and a shark with a tail lifted high and bent over.

Mary—Very good craftsman—true instinct for beauty, sense of shape, good in designing; has made square box with fitted lid.

Walter—Has skill, finds it hard to settle down to work. Made a cobra.

Douglas—A dreamer, but with good technique, very independent; seldom chose clay, but worked constantly when he did. Modeled a lion.

Ruth—Artistic, knows exactly what she wants to make. Made a humorous model of a dog and insisted on having it white with brown spots.

Jenny—No concentration; made a candlestick.

Grace—Independent, with a high opinion of her own ability; capricious, makes ordinary little things—bowls, candlesticks.

Helen—Imaginative, persevering; has made little rabbits and squirrels for the Play City parks.

Roger—Has not chosen clay at all.

III. Special Training

Reading

Roger has surged ahead of the weaker group in reading. He has gained enough independence to be able to read the Baker and Thorndike First Reader with little help. The phonetic writing at the board and some drill with phonetic flash cards have helped him in his recognition of new words. Jenny and Dorothy were not able to study the Baker and Thorndike First Reader independently, so they were given primers to read in place of it. An old copy of the Aldine Primer made Dorothy very happy when she found she could read it with ease and rapidity and without asking for assistance. She said over and over that she loved it. She has had some unhappy moments, when she has been required to study independently anything which she considered difficult, even though it seemed well within her grasp. Jenny does not have this aversion to digging out things by herself, but her span of attention is short.

The stronger group have been gaining steadily every day in their habits of intelligent concentrated study. Most of the half-hour reading time has been a silent study period, in which I have paid especial attention to the less independent workers. The silent period is always broken into by two or three children asking to read some interesting part they have come to in a book, or to tell a story which has especially pleased them. All of them read in their natural speaking voices. Francis, who was reading the Hiawatha Primer, wanted to read the part beginning with "Saw the rainbow" to the class, but as he read in a very low voice and with little expression, he was not able to hold the attention of several of the children. He made a second, better attempt, but Ruth's attention wandered. Then I read it, to help him see how he might gain even uninterested Ruth's attention. The class clamored for more of the poem. I went on with it, as three or four children were reading it by themselves, and I felt that they needed help in getting the beauty and meaning of the story. Ruth attempted to read *Mewanee* and was fascinated by the long difficult words in it and her ability to puzzle them out, but she was not able to get much of the content. So that was taken away from her and *Arabella and Araminta* substituted. The simple details of the lives of these two small girls

have furnished entire satisfaction to her, and the class has given her their undivided attention when she has read to them or told them parts of the story. Most of the other members of Ruth's group are more ready for reading matter containing content than she is at present, although she has gained greater facility than nearly all of them in reading. The Francis Parker Second Grade Leaflets on old mills, threshing, corn-husking, and so forth, have been read by the group. Study periods were given first, and then each child allowed to read or tell to the class the most interesting part of his leaflet. Roger, in spite of reading with greater difficulty, was able to tell more about the few lines he read than Ruth who had read several pages. We have discontinued our subscription to the newspaper printed in large type by the Elevens, as we no longer feel the need of one. The printed copies of original stories and verse, and accounts of group activities for the loose-leaf note-books have furnished all the material necessary aside from the reading of books.

There has been a small amount of time taken with the whole class for rapid drill with combinations of sounds. More individual work has been done with the children who apparently needed it.

These children have worked with phonetic drill cards in groups, by themselves, or with me. A short drill in phonetic writing at the board has

been continued day after day. This has greatly increased ability in spelling, and has helped in recognition of new words containing familiar combinations of sounds.

Language, Writing, Spelling

Some of the children had started writing stories for themselves in January, but during February there was no especial interest in it, partly on account of so much else to be accomplished. But now the interest in story writing took a sudden leap. Some of the children brought composition books from home like Helen's, which she had started in January. Others wrote on sheets of paper and bound these together by sewing them or putting colored covers on, punching holes, and then tying them with colored thread. Many of the covers and stories were illustrated. The girls led in the enthusiasm for story writing. Walter and Roger evinced small interest. Roger's form has much improved, due to practice at the board, but he still finds writing a task rather than a pleasure. Many of the stories have been of personal experiences, trips, accounts of birthday parties, of playing at home, of the Play City at school; there were imaginative stories, too, of blind people, or poor people who were made happy through some kind action. Several were imaginative stories where everybody died. Helen wrote again about our

trip to the Woolworth Tower. During the "free writing" period, as it was called, when it was not necessary to write orders for supplies or letters, I spent my time spelling words asked for, overlooking stories as they were being written, and giving some simple suggestions as to punctuation and capitalization.

Following are some of these uncorrected stories:

JENNY AND DOROTHY

Once there was a little girl. She Made the Holly Hotel. Once there was another little Girl She made the Post Office so they both Made something for the City then there was another and she Made the Country house the end.

Jenny.

THE RAILROAD

We are setting out the tracks and they are steel and the corss ties are wood in the city yard. We tried to run it and it ran. We are going to put the city out next week and sail the boats.

Walter.

The little dog was in the Kennel and found some milk the little Dog ate the milk then was happy the little cat in the house lapping up milk happy was He the cow Was in the field eating grass the pig Was in his pen eating garbage Cluck Cluck goes the hen in her very deep voice.

Dorothy.

A letter received from Gordon in California brought the following answers from the class:

Dear Gordon, I'll finish your barn because Walter has not started work on it. Love from Francis.

Dear Gordon, I am so sorry you are not in school. I went to Florida and I went to the beach and I went in swimming. Love from Grace.

Dear Gordon, I like your letter. Henry said he will finish it.

Mary.

Dear Gordon, I've finished my drug store. Please answer our letters. We miss you.

from Dorothy.

Dear Gordon, My house is all finished. I am making a flower store and I have a drug store. Love from

Helen.

Dear Gordon, My mill is all finished. I hope you are have a good time. Have you seen any wheat fields? Love from

Douglas.

Dear Gordon, I hope you are having a good time at California. We have a polyphemus. Love from

Jenny.

Dear Gordon, The hardware store is finished. I'm making the Waldorf Hotel. Helen has the country house all finished. Helen has a drug store. Helen has a flower store. Love from

Ruth.

Dear Gordon, I have finished my butcher shop. We are having another play and it is the story of the wheat. Love from

Sarah.

Dear Gordon, My school is almost finished. We are going to give a play. Love from

Roger.

Each child was given a small indexed loose-leaf note-book, 7 x 8½ inches, containing pages of our regular wide-spaced writing paper. Any word which a child asked how to spell was to be written in this "dictionary" by the child. In this way he was given the opportunity of keeping account of the words he wished to be able to use in writing. These dictionaries were received with pleasure and there has been careful writing in them. Ruth began to worry, however, for fear she would not be able to find many words to put in hers. She has had such intense interest in written symbols, that she has learned to spell nearly all of the words she ever wishes to use in writing. She grew to watch for "hard" words written on the board by me for the other children, and to write them in her dictionary.

Writing at the board has helped Roger and Ruth to improve their form very much. Interest has continued in their phonetic writing and there has been great gain in ability. Sometimes the

whole class has written columns of words containing the same combinations of sounds, and sometimes each child makes up a list of words containing different combinations. The combinations, such as *at, ed, ell, am, an, ou, ow, ing, ate, er, ur, ir,* which are met with constantly, have been worked with most.

Number

The cost of the play was computed, the price of the cheesecloth, burlap, muslin, silver and gold paint, and gold paper being summed up. Some of the children are beginning to be able to add columns of figures in which carrying is involved. They have watched me during the year as I wrote on the board the items from the bills presented us by the Eights for school supplies, and have performed the operations in addition with me, except that until now I have done the carrying of numbers from one column to another. They have seen that the answers secured agreed with the amount of money we have counted out and paid the Eights upon their demand.

Through Grace's dissatisfaction with the way in which she was to be paid for the rental of her theater, a discussion of money came about. Mary turned to me and said, "Well, how did they ever get the first money?" Then we talked of trading and exchange, of Indian wampum belts, of the use

of precious metals, of banks, and of the checking system.

Checking up in the telling of time, and in the counting of money, and the reading and writing of number has continued. There is also an account of the children's use of money under "The Play City."

IV. Organization of Information

Discussion

From talking about all of the things we could think of that were made out of wheat seeds, the discussion went on to what foods were made from other seeds. Pantry shelves were searched at home for food made from seeds, and samples were brought to school. There were whole-wheat flour, white flour, a slice of bread, shredded wheat, Ralston Breakfast Food, Germea, Rolled Oats, rice, Puffed Rice, corn-meal, Karo Corn Syrup, corn flakes, molasses, mustard, salad oil. Finally, one day Ruth brought a stalk of celery. When the children said celery was not made out of a seed, Ruth replied, "Well, it comes from a seed." Then there was great interest in tracing other kinds of food to their sources—milk, meat, vegetables, and fruits. Douglas said, "Meat does not come from a seed; it comes from a cow." But after thinking it over, he knew as all of the other children seemed to, that the cow had first been a calf, and before it

was a calf it had been a sort of seed inside of its mother. The conclusion was reached that every kind of food comes from a seed.

Grace (remembering the life history of sugar from the Christmas play) said: "Sugar does not come from a seed. The stalks of sugar cane are cut in pieces and planted." I told her that was the quickest and best way of planting on sugar plantations, but that the first stalks had sprouted from seeds.

Later, the children told of the corn-fields they knew about, and the silos they had seen. The planting, harvesting, and storing of corn was discussed. National Geographic pictures were looked over. Corn was ground in our coffee mill into corn meal. A list of things which are made from corn was written on the board—corn-meal, cereals, starch, oil to burn, oil to cook with, oil to make soap, mattresses made from husks, paper made from the outside of the stalk. Under "Reading," I have told of the interest in the Francis Parker Leaflets on wheat and corn.

Some of the children had also seen rice growing, and told about it, and pictures were shown of rice growing in different countries. We received some slides from the Museum of Natural History on "Some Sources of Our Food Supply" and, after looking them over and listening to the accompanying written descriptions, different children volun-

teered to tell about the corn and wheat in the assembly with the Seven B's. The slides on wheat showed:

1. What the wheat plant is like and its distribution as a cultivated crop.
2. Preparing the soil and sowing the wheat.
3. Harvesting and marketing the crop.

Those on corn were very similar. The pictures thrown on the screen excited so much interest from the audience that the appointed lecturers were by no means the only speakers. Much information was added by the audience and many questions asked. Everyone seemed to feel this was a subject on which he was well fitted to speak.

We had a Polyphemus moth come out of its cocoon on March 7. Its crumpled wings and lovely colors and, later, the laying of eggs occasioned much interest. This led to conversation about the life history of butterflies and moths. (See also discussion of Money under "Number.")

Trips

Metropolitan Tower.

Orientation

Africa continued to be a place of interest to the group. The picture of "Hunting Big Game in

Africa'' had made a deep impression on the children who had seen it. Roger especially, continued to talk of it and to wonder where in Africa the Ford car replenished its gasoline. Everyone was interested in the discussion and pictures of the African ways of planting and harvesting wheat with rude wooden sticks and plows hitched to camels, and in their method of crushing wheat in hand mills. Ruth brought coffee from home which she said came from Brazil, and she showed the class where Brazil was on the world-map.

A map showing the countries where wheat and corn are produced, was thrown on the screen during our Assembly on the sources of food supply, and different children were eager to point out and name the various countries growing wheat.

Stories

''The Story of the Caterpillar'' by Katharine Pyle was read from *My Bookhouse,* Vol. I, after the Polyphemus had come out of its cocoon. The story of Ulysses and Polyphemus told from Palmer's *Odyssey* held an audience which demanded more stories of Ulysses. I told part of Oscar Wilde's story of ''The Selfish Giant'' and ''The Little Rabbit Who Wanted Red Wings,'' by Bailey. Mary said, ''I like the stories you tell better than the ones you read.'' Some of W. T. Hopkin's stories were told and ''The Whole

Wheat Story," from his *Farm Stories,* was read. Both Helen and Sarah liked it so much they asked for the book to take home and read. Later, Sarah told "The Baking Story" from the same book. "The Corn Story" by Hopkins, adapted in the Riverside Third Reader, was also read. The "Feast of Mondamin," from Hiawatha, was partly told and partly read, causing much questioning and interest from the group.

Some spring verse was read from the collections of poetry in the room. After I had read Wordsworth's "March," I asked the children what pictures they saw during the reading. Dorothy said, "I saw myself on my pogo stick out in the country getting hotter and hotter." Roger: "I liked the picture of the lake best because I like to swim." Ruth: "I saw us playing out in our City with the boats going up and down." (They had wanted to take their houses out and play that day, but it had been too cold.) Other children spoke of the pleasant pictures of cattle grazing and of the plowing.

Science

Illustrating the use of the siphon and showing how a city gets its water supply, Mr. Meister told the group of the tremendous pipe which brings our water to us from the Catskills, and how it must come over a mountain and under a river.

He said: "I will show you how it comes. Pretend this trough is the pipe bringing water to the city. This high bench is the mountain, and the bottle on the floor is the reservoir in the city where we want to take the water." He connected a tube from the trough down to the bottle on the floor. The water did not begin to flow. Mr. Meister: "Would you expect it to?" Children: "No, it won't go up over the mountain." Dorothy: "You'll have to have a pump or a squirter." Mr. Meister then sucked the end of the rubber tubing, and the water started to flow and finally filled the bottle. Each child then performed the experiment for himself with his own apparatus. They all had difficulty at first because they set their bottles up on the bench higher than the water in the trough. Douglas finally put his down lower than the trough, and the water began to flow.

Another day each child worked with two bottles and rubber tubing, finding that he could not make water run from a low level to a high one, but that he could from a high to a low one, and discovering that the water would not rise higher than its own level.

APRIL

I. Play Experiences

The Play City

The laying out of the City in the yard has been going steadily forward. Durable tracks of wood have been laid for the electric train on the New Jersey side. Brass strips, to allow for the passage of the electric current, have been nailed on to the wooden tracks. The boys brought all their electric trains and engines from home and began to feel that the railroads belonged to them. A great deal of dirt and gravel had to be removed from the side of tracks and was hauled in the coal cars of the trains. Not one of the girls had any electric trains at home and they were quite ready to accept the boys' attitude of excluding them from the laying of the tracks and cross ties, and the play with engines. Mr. Paley, who superintended the track building, was able to counteract this feeling, to some extent, by declining the continual offers of services from the boys, and inviting the girls to help.

After some discussions and work with the map of Manhattan, which appear in detail under "Orientation," we went out into the City yard

and decided on the locations of the most important streets and buildings in our City. Washington Square Arch and Fifth Avenue were decided upon first. Stakes were driven and cord stretched tight along Fifth Avenue. Then came Grand Central Station and the Public Library on Forty-second Street. As the surveying continued, each child who had a building for the street staked out brought his building and located it properly.

Sarah said to Ruth, "Ruth, are you going to live on the New Jersey side or the New York side of the river?" Ruth replied, "On the New York side because I'll earn more money there."

Everyone understood it was possible only to approximate distances and locations.

There was much greater leeway allowed in the placing of the buildings on the New Jersey side. We all agreed that the boys should place their factories and mills along the edge of the river, wherever they could make the best connection with the trains. Helen placed her country house at a safe distance away from the river, "on account of the children," she said, and the farm was placed still farther inland.

The work in surveying and the placing of the City buildings continued day after day. There was also a great deal of work to be done in cleaning the yard and the cement river bed. But hardly had Grace's theater been located when it was

opened up for a show and most of the citizens dropped their work to attend. Douglas and Roger kept on steadily with their sweeping of the cement river bed. They said, "We should be paid for this by the City." Jenny, overhearing them, answered, "We must have taxes." How the children attacked the question of keeping the City clean appears under "Discussion."

Play With Big Materials

OUTDOORS

There has been a renewed interest in play with the apparatus in the yard. The slide, swinging rope and ladder have been used constantly. Ruth, who has been gaining in control during the year, has been attempting much harder feats all the time. She has been climbing the ten-foot ladder in the big yard, and sliding down on the swinging rope. Most of the girls have spent part of their play periods jumping rope.

There has been a great deal of horse racing and playing cowboys and Indians, when the two groups of Sevens have played together. Ruth seldom has cared to join in this play, which is always organized by the boys and is apt at times to become rough. Helen, Jenny, and Grace have joined in it enthusiastically, however. Sarah and Dorothy have found their greatest delight in domestic play, building different rooms with the

outdoor blocks and planning to continue the play after school.

Drawing and Painting

Most of the painting and drawing this month has been illustrative. With the enthusiasm for making small books of written stories, crayons have been used almost constantly. Illustrations have beautified the covers, the beginnings of stories, the middles and the ends. Trains of cars, boats, barges, scows, derricks, giant shovels, City buildings and houses, rivers, mountains and trees have been drawn, and some pictures of children. Roger, who was drawing trains, asked if I did not have a picture of a train for him to look at. So I hunted up *The Railroad Book* by E. Boyd Smith for him. Some of the furniture for the houses has been made interesting by the decorations on chairs, tables, and beds. Dorothy made a paper screen, with a nice design on it for her house. Ruth repainted her house and decorated the outside walls with wavering lines of a darker color.

II. Practical Experiences

Shop

Ruth and Helen have had much joy all the year in working in the shop and have shown the greatest industry. Consequently, they have become the

largest property owners in the City, possessing together a country house, an apartment building containing a hardware store, dressmaker's shop, and living quarters, a drug store, and a station at the docks. This station was a one-story building at first, but later they enlarged it to two stories, so that it might have a lunch room. They have made furniture for all of their buildings. Sarah changed the top floor of the building in which her butcher shop is located into a dressmaker's shop. She put up a bar on which to hang her gowns and made several little coat hangers. Douglas has started making a dock for the New York side of the harbor, and Grace made the Washington Square Arch. Several of the children have cut trees out of wood with the jig-saw, and have put them on standards and painted them green. These are for the parks.

Cooking

(*See* "Cooking" in May notes.)

III. Special Training

Reading

The half-hour reading period has become one of concentrated study for nearly every one. Jenny and Dorothy have attained only to the power of reading primers independently, but they are reading more rapidly and with greater enjoyment all

the time. Jenny, if she is unable to get anyone else to appreciate a story with her, laughs over it and enjoys it by herself. When Jenny and Dorothy have read anything of first-reader difficulty, they have needed help with many of the new words. I have taken odd moments for work with them in phonetics. Phonetic writing at the board has continued two or three times a week for the whole class. Roger has put forth steadily increasing intelligent effort, and has insisted on "harder" books! He has read some of the stories in the *Here and Now Story Book* and has started on *Red Feather.*

The reading period has become a very popular one. Such expressions as "I love to read," from Walter, or "Oh boy!" from Douglas, are elicited sometimes when reading time has come. Walter, reading the Baker and Thorndike First Reader, said, "I like the 'Brave Blackbird' in this so much I'm going to read it again." Mary also read it twice saying, "It is so good!" Walter told the story of it to the children with some uninvited help from Mary, and held his audience throughout. Then Grace said she had reached such a good part in *Five Little Friends*—could she tell it? Helen and Sarah, who have also enjoyed this little book very much, amplified parts of the story as Grace told it. Grace, after enjoying *Bow-wow and Mew-mew,* refused *Arabella and Araminta*

saying, "It's too much alike. Arabella picks one flower, then Araminta picks one."

Sarah upon finishing the *Letters from a Cat* said: "This is awfully good! It's sad." Helen and Sarah often took books home to read, but have chosen sewing or working in shop many times during the reading period at school.

Francis was so thrilled with the *Tree Dwellers,* that he often interrupted the reading period with, "This is very exciting here!", or "Listen to this." His enjoyment of the book influenced Douglas to such a degree, that he waited with great impatience for Francis to finish it. Francis' joy was great when he found there was another book, *The Earlier Cave Men,* following this, and he began reading it with eagerness.

Writing, Language

Half an hour continued to be given three or four times a week to the "free writing" period, which most of the children greeted with enthusiasm. Francis, Walter, and Roger had some of the most interesting things to write, but, on account of the greater difficulty with which they wrote, were not so eager for the period. Nearly all the stories were illustrated. Many of them were made into booklets. After the assembly on "How Our City is Kept Clean," Douglas wrote on what is done with our ashes, and Ruth wrote a

little lecture on what to do with orange peelings. Greater use has been made of punctuation marks and capitals, although much improvement is still needed. The reading aloud of stories as soon as they were finished brought much gratification to the authors, and sometimes proved stimulating to the audience.

Some of the stories written in April are given below.

Don't throw orange peelings in the street, or any old rubbish or garbage. All rubbish and garbage go way over to Brooklyn in big high buildings. The belt is eighty feet long. There is a great enormous furnace. What stuff that escapes from the mens hands goes in a furnace a great big one indeed.

the end.

RUTH.

Ruth has been the most prolific writer all the year. In her stories she has often used information she has gained; for instance, she made up a story about the *Majestic* and said, "It was the biggest boat in the world." Her written language has shown the same quaint strain as her speech. She wrote: "Once there was a little Girl. She had no parents. She soon got tired of no parents." The little girl finally found a very satisfactory parent who answered her with an, "All right oh," when she asked to go out of doors. In another one, she wrote of a little girl that she

was "full of tears." She wrote quite a complete account of our City.

We have a city. We are making a dock. Douglas and Francis are doing it. Sarah has changed her butcher shop into a dress making shop. Helen has a country house a drug store, and a dressmaker's shop. Mary has a library. Walter has a train factory. Douglas has Heckers Flour Mill and the Pennsylvania Hotel. Grace has a theater a private house a dressmaker's shop. We have great fun there. The end.

RUTH.

RIKER'S ISLAND

Riker's Island used to be a little Island and now they are building it up. And every day they bring scows and dump the ashes here and there is a machine that presses the ashes down.

DOUGLAS.

THE GIANT SHOVEL

It vomets pebbles then it dips them in the river Then it puts them in a big truck. Then the truck takes them to Bunnys House then the men take the shovels out of the truck and shovel the Pebbles around the yard.

The end.

ROGER.

One day a caterpillar made a cocoon. Then he went to sleep. When summer came he woke up.

FRANCIS.

Spring is coming. We want to go to shop and get the city finished. Before the Schools are over.

MARY.

THE LITTLE GIRL

Once upon a time There was a little girl. And she made a theatre. And She let the children use it. And so she made them pay. One day a little girl made a butcher shop and another little girl a candy store.

The end.

GRACE.

Once two children went up in the mountains with there father and mother for an Eastern vacation they had a tent and they hid Easter eggs on Easter then they went home.

HELEN.

(Illustrated with one picture of purple mountains, green grass, blue winding river, and another of a tent with two little girls playing outside in the green grass.)

Ayres' Measuring Scale for Handwriting was thumb-tacked on the wall and caused some interest and discussion of skill and care in writing. A few of the children consulted it by themselves during successive days to see if their writing had improved.

Spelling

Each child gave me a list of the words he had in his dictionary under *a, b, c,* etc. I put these to-

gether in my dictionary, so that I had a list of the words the different members of the class had shown a need of knowing how to spell, since the end of February. Then I proposed that it would be interesting and might prove very useful if each child could have this list also, eliminating words that were too difficult or unusual. We began definitely to learn the words from our dictionaries. These were supplemented by ones from a list made by the Second Grade at The Lincoln School. One day all the words under *a* were taken, then under *b,* et cetera. I wrote one at a time very carefully on the board and the class copied carefully—the tall letters filling the space on the wide-spaced paper, and the small letters half of that space. As we wrote, we discussed the words—sometimes the places where the words had been used, as with *write, right,* and *their, there.* We also talked about certain parts of the words it would be well to remember, as *ar, on, al, ch, ing.* As a word was written, each child closed his eyes to get the picture of it. Sometimes they were checked up orally, to see if the picture was correct. Sometimes we went on immediately to the next word. Certain words were left to the choice of individuals to include in their lists, Ruth and Helen insisting always on having every one. A short period for silent study followed for those who seemed to need it. Ruth and Francis did not

display any need of this period. The children then worked together in couples, checking each other orally in the spelling. If a child misspelled a word, he wrote it three times on the board correctly, and then spelled it to me. Jenny and Dorothy needed the most help.

Number

Some of the children reported counting the money in their mothers' purses at home. It was necessary, occasionally, to count the money in our treasury at school, and often bills must be paid. Sometimes the children asked to play store. One child would be storekeeper and different children would come to him and ask for a loaf of bread, a can of peas, or bacon. They would pay him with a dollar bill or fifty cents. He would then hand over the package and count the change on from the price of the purchase, in regular storekeeper fashion.

Everybody has made toy money for use in the Play City. Jenny was worrying about the kind of money she had made. She said, "I'll not have enough five cent pieces to get in the subway." Helen comforted her with, "Well you could change five pennies for it or get change for a dime."

Two new games of combinations were introduced which the children took to eagerly. "Slap

Jack" caused much fun and excitement for a while, and helped to add interest in knowing the combinations. Out of a pack of cards on which were printed all the possible combinations under 12, certain cards were decided upon each time to be used as "Slap Jacks." For instance any card containing a combination of 11 might be chosen to be slapped in the game as

8	6	4	1	9	7
3	5	7	10	2	4
—	—	—	—	—	—

The person slapping the given card then won all of the cards out on the table. The child gaining the most cards became the winner. "Meow," a game of matching combinations and answers, became very popular also and was asked for day after day for a time.

We have had a drill on the board and on paper on combinations and on combinations with the same ending—as

2		22		32	
3	so	3	and	3	et cetera.
5		25		35	

Mary, Sarah, Jenny, Ruth, and Helen have kept up their interest in reducing the amount of time in which they can write the answers on a page of combinations. They took papers of combinations home and worked on them. Sometimes they made

up their own pages of combinations. Mary said, "The way I know 9 plus 7 = 16, I take 1 off of the 7 and make it 6, and put it on the 9 and make it 10. So that makes 10 plus 6." She has overcome this cumbersome method, however, by the drills she has given herself.

IV. Organization of Information

Discussion

As the City grew, different questions as to city management sprang up. We took up the question of how New York City keeps clean. We discussed street cleaning and the disposal of garbage, rubbish, ashes, and sewage. All of these topics proved of great interest and the children went home and discussed the same things there. The building up of Riker's Island with ashes, and the way in which soap fat is secured from the cooking of garbage by steam, were two points of greatest interest. Pictures and stories appeared concerning these things. We gave an assembly to the Seven B's in which we led the discussions, but they joined in with as much enthusiasm. Roger illustrated his talk with a picture showing the unloading of ashes from a scow at Riker's Island. Douglas drew a tug pulling a scow which was loaded with ashes. Dorothy's drawing showed a great vat in which garbage was being stewed, and a man standing near to attend to it.

Sarah had a picture of a woman with a baby trying to cross the street, while a policeman held up his hand to stop the traffic. Mary drew a row of houses facing a city street.

We also discussed our two great terminal stations. *The National Geographic Magazine,* April, 1923, had an article by William Joseph Showalter on "America's Amazing Railway Traffic," which gave much illuminating material. Some pictures of wonderful bridges, of the first engines, and of the largest engine in the world were of great interest. The comparison of the power of electric and steam engines provoked questions and animated discussion.

Trips

Lackawanna Station in Jersey City.

Orientation

In order to lay out our City properly, we located on the large map of Manhattan the places we were to have in the City—Central Park, Washington Square Arch, our schoolhouse, etc. Every one then practiced drawing the outline of Manhattan and placed these various structures where they belonged. Some of these maps were finished up in a picturesque fashion with green grass and blue lakes in the parks, and smoke coming out of the chimneys of the houses. Instead of drawing Man-

hattan, Sarah insisted on drawing our Play City as it would look with the houses in it. After she had done that, however, she consented to draw Manhattan and put in the same houses. Sarah and Dorothy have shown the least interest and ability in map drawing, and have not a well-developed sense of direction.

After we had made these outlines or diagrams, we then proceeded to lay out our Play City. This account appears under "The Play City."

A trip was taken across the Hudson to Jersey City. There the children saw the trains coming into the Lackawanna Station from further inland. They also saw many wagons waiting with their produce for a chance to ferry across to New York. In the river they saw the usual number of barges carrying freight cars to the city.

Stories

Dorothy brought the *Rootabaga Stories,* by Carl Sandburg, to school and I read one or two to the children, who apparently had great fun out of them. Then we began the story of *Kari the Elephant,* by Mukerji, and it proved very popular.

I read some spring verse—Thomas Nash's "Birds in Spring," and Shakespeare's "Under a "Greenwood Tree." Later, when Mrs. Mitchell came in, Dorothy asked her to read "Birds in Spring" because I had said she could make the

bird calls sound more like real birds. They all enjoyed the "Cuckoo, jug-jug, pu-we, tu-witta-woo!" of the verse.

Science

The building of the electric railroad in the Play City with Mr. Paley's assistance has been mentioned under "Play Experiences."

MAY

I. Play Experiences

The Play City

Francis, who had charge of the farm, superintended the loosening of the soil and the planting of grass seed all over that part of the yard designated as the country, in order to give it a real look of the country. The children painted signs, "Keep Off," and enclosed that section by putting up stakes and strings. When the grass began to show green, several of the girls moved their houses out there and could not be persuaded to move back into the City, although by staying in the country they would have to forego electric lights. Some wooden toy animals were brought from home by different children and a few were found that had been made at school the year before. These were placed in the stalls in the barn, and out in the meadows.

Douglas and Francis ran trucks out to the farm. Roger ran a truck up Fifth Avenue. Boats sailed up and down the river going, "Toot, toot, ch ch ch, too too—get a gang plank. Anyone want a ride? Here's a steamer." Sometimes toy automobiles were carried on boats and lifted up to the factory by derrick. The electric trains ran, taking pas-

sengers. The electric road needed repair work done on it up to the last, as the first brass strips employed had not been of sufficient weight, and each rain that came caused them to curl up and split. The boys, especially Douglas, continued to show much more interest in working on the track than the girls. This was undoubtedly due to interests which had their inception at home with the boys and had not been developed with the girls. Many parties and shows were given for the dolls and long dialogues were carried on for them by their mothers.

Each child wired his house or store and then made connections with the wires which had been placed underground. Some of the lights refused to work, as certain nails in the circuit had become rusty. When new nails were put in, the lights came on.

The children whitewashed paths to represent the sidewalks along Fifth Avenue, Forty-second and Thirty-fourth Streets, but these did not prove satisfactory as each rain washed them away.

During a joint meeting of the two groups of Sevens in which the necessary work of a city was discussed, the different children told what their duties already were, or chose what responsibilities they would assume. We had Street Cleaners, Waterways Superintendents, Electric Supervisors, Postmaster, Bakers, Elevator Inspector,

Boatmen, Farmer, Grocer, Butcher, Banker, Dressmakers, Druggist, Librarian, Hotel Manager, Manager of Offices. Everyone set out to make a badge signifying his position. Wooden badges fastened on with clamps and safety pins were made in the shop. There were also ribbon badges, paper badges, and cloth badges. The children took up their chosen duties with diligence, which in the case of some of them relaxed after a time. The Waterways Superintendents—Ross and James from the Seven B's—were the most faithful. They brought in some rules which they had thought out together and typed, and which were accepted by vote by our group.

CITY RULES, MAY 10, 1923

1. Don't throw anything into the reservoir, $10 fine
2. No bathing in the reservoir..... $20 fine
3. No boating in the reservoir..... $5 fine
4. No garbage is to be dumped in river. $100 fine

After Ross and James had collected several fines in toy money, their rules were very respectfully observed. Helen and Sarah asked permission of Douglas—the representative in our group of the Waterways Superintendents—before they even allowed their dolls to go bathing in the river. Maude, from the other group, faithfully inspected and mended faulty elevators. Douglas was called

upon continually for help in making connections with electricity. Sarah held her own as dressmaker in spite of her competitors and began receiving written orders from the group of Seven B's.

In the play in the City, the various buildings were often used for different purposes. Dorothy changed the Holly Hotel into the Duke of York's Palace for awhile and went into the shop to make a throne for the Duke. Roger showed a sense of shame in possessing a schoolhouse and soon changed it into an office building.

But the minute some of the girls saw there was to be no schoolhouse in the City they began shifting one of the rooms in an apartment house into a schoolroom.

Play With Big Materials

OUTDOORS

Some fascinating steamer play out in the yard continued for a week or two. The large blocks were built in the shape of a steamer. Staterooms were constructed inside with upper and lower berths. The roof, which jutted out from the yard wall to protect the blocks from rain, served as an upper deck which was reached by means of the slide borrowed from the see-saw. A steering wheel which Mr. Reber had made for the Sixes was set up in front, and the boat was carefully steered.

Storms came up and sometimes danger appeared in the shape of an enemy's boat, or a whale, or a fire down in the engine room. There was a nurse on board and a ship's doctor. The passengers went to meals and put their children to bed, and sometimes called in the doctor and the nurse. Regardless of their passengers, the officers occasionally changed the boat into a whaling vessel, but the play in the staterooms went on without change.

Fire engine play, engaging the whole of the group, sprang up several times and was carried on with excitement and energy.

INDOORS

One rainy day when the children could not go out in the yard to play, Jenny said, "Can't we bring our furniture and things in from the tool shed and play on the tables?" Very soon a community play was going on that took in most of the group. The tops of the tables served as rooms—dining-rooms, nurseries, bedrooms, and playrooms. Francis, Douglas, and Walter came into the fun by starting a fire. Later, Walter ran a taxi cab. The play had started up again in the afternoon before I came into the room. It was being entered into with such enjoyment that I decided not to interrupt and therefore set aside the drawing period I had planned.

Organized Games

Only a few times did some of the children come to me and ask for games, such as "Red Rover," "Fox and Squirrel," and "Goosey, Goosey Gander." These were seldom entered into with the same enthusiasm that their own imaginative group play brought forth.

Drawing and Painting

The children made table covers of all sizes and shapes for the party to which they had invited their mothers and fathers. They used drawing paper and all of them chose water-colors which they mixed themselves, rather than the show-card colors in the jars, or the crayons. They all worked earnestly and produced some of the most effective paintings that they had done. Some of the paintings were of flowers growing, trees budding, and blue skies. One or two showed tables set out under grape-vine arbors or trees. There were a few with brightly colored designs. Francis painted an exquisite little picture of a yacht sailing out to sea and a house in the distance.

The class continued to work on illustrations for their reading books and many interesting stories were connected with these pictures. There were engines, trains, boats, docks, derricks, horses, children, farmers, rivers, oceans, whales—pictures of nearly everything that the children were coming

in contact with either through actual experience or through reading. Ruth was the only one who refused to make illustrations. Although her technique had improved noticeably, her critical ability of her own powers had gone ahead of it and she was afraid she would spoil her book. The search for suitable matter to illustrate often caused the children to re-read pages of their books.

I. Practical Experiences

Shop

Most of the buildings for the City were completed at the beginning of the month but they required a small amount of repairing and painting and were constantly supplemented as new needs arose. As the children finished weaving hammocks, they went over to the shop and made standards. Sometimes they wanted more furniture and made that, or redecorated what they already had. Francis needed encouragement and help in finishing up the farm buildings, but he finally completed them. Douglas finished the dock for the New York side, but it did not prove very satisfactory as it was under water when the river was at high tide. Some boats were completed and wooden trees and flowers were made. The station for the dock was the only unfinished building. Its builders had had plans that were too ambitious. The shop during the last month proved a very

convenient place for the finishing up of old plans, or for the carrying out of small details of new ones.

Cooking—Notes by Miss Hannum

The months of April and May were given to reviewing the fundamental principles which had been evolved throughout the year. The only new phase of cookery was "Frozen Mixtures."

The review was begun by a lesson on Jelly Roll. This was a review of Hot Water Sponge Cake, made in January.

In the discussion, the majority of the class could tell the fundamental differences between plain and sponge cake. The exact proportions used in making sponge cake were not well remembered, yet very good suggestions were made and the proportions decided by group discussion.

In this lesson the children as a whole showed greater ease and dexterity in the final process of rolling the cake, than they were capable of earlier in the year.

Spice Cake lesson was a review of plain cake, with the children suggesting the spices to add. Some suggestions were made which were not accepted by the class. Only the proportions were reviewed; nothing was said about the method of combining. Francis and Ruth only were hesitant in some of the steps.

The improvement in technique was clearly reflected in the superior quality of the food produced, and the lessening of the time required. With the exception of Francis and Ruth, they all seem to work about on a par, Ruth working better than Francis, yet not quite equal to the rest.

When the work in "Frozen Mixtures" was begun, the principle of the ice-cream freezer was first discussed; why salt was used; why the ice melted and where the mixture received the heat required. Next the ingredients were discussed. Many of the children had helped make it in their homes; Roger, Grace and Douglas contributed most of the suggestions. Each cooking group of two had some part to do, combining it all in one two-quart freezer.

Bearing in mind that the freezer held two quarts they decided quite accurately how many cups of milk, how much cream, sugar, and eggs to use. The fact was brought out that some ice-cream was made without eggs.

After one lesson on ice-cream, the group had a party to which the mothers were invited. The children prepared little sponge cakes and ice-cream. With the idea in mind that they were preparing for a party, there seemed to be an added earnestness and intense enthusiasm. After having named very quickly the ingredients which they were going to use in making their cakes, the cake

makers were left entirely to themselves. They took charge of the actual baking and not a cake was burned or otherwise spoiled. In doubling the quantity of the ice-cream, there was much hesitancy, but the method was well remembered. The entire work of preparing the food, setting tables, et cetera, was accomplished in fifty minutes by the group.

After the ice-cream, the next lesson was Orange Ice. Ices were compared to ice-cream and both the similarity and the difference brought out.

After making orange ice, the class drew up a very good recipe for strawberry ice, and made it in the next lesson. This was the last lesson in frozen mixtures.

In summing up the year's work, the following results are apparent:

1. Some understanding of the principles of canning and preserving, flour mixtures and frozen mixtures.
2. Better reasoning in applying the old to the new.
3. Great improvement in technique and dexterity.
4. Ability to co-operate with one another in preparing a dish.
5. Routine habits of dishwashing, care of supplies, etc.

Clay

The whole class continued its work in clay with one period a week. They made bowls and dishes and bathtubs for their houses and modeled some very good animals. Walter did some careful modeling of a hen and an elephant. Francis worked earnestly and well on a boat. Dorothy and Grace both made teapots for their mothers, and Roger a covered ink-well for his.

III. Special Training

Reading

Francis, upon finishing *The Earlier Cave Men,* began *The Later Cave Men,* but after he had struggled with it awhile, found it beyond him. He was so disappointed, however, that I read a little of it to him and to a group which gathered. Douglas had to put forth his bravest effort to get the story of *The Earlier Cave Men,* but he would not listen to my suggestion of an easier book to read. His power of concentrated perseverance is unusual. Walter began the reading of *The Tree Dwellers* with relish but did not have time to finish it. Roger found *Red Feather* just to his taste, and could never read to me when I came to him in the reading period without telling me the part of the story just previous to the part he was reading. He has gained surprising independence in reading, considering his early struggles. Jenny

and Dorothy have not gained this independence, although they have profited by the extra periods of phonetic drill they have been given. They have had to be shown each separate step over and over. They were the only ones in the class, for instance, who, knowing what *it* said, and after making up many words containing it, still did not go on to the next step and recognize for themselves the sound of the *i* in *it*. One day after some one had asked me to write the word *better* on the board, Walter said, "Always, if I'm not sure whether to put an *e* or an *i* in a word, I think of the *e* in *Jenny* and then I know." This proved of some help to Jenny.

Our books of original stories and verse and accounts of the class doings were completed. Before any page was added to a child's book, his reading of it was sanctioned by some child or by me, except in the case of the few to whom the reading was very simple. I overheard Mary say to Ruth when she had finished the leaf containing *The Plum Pudding* by Gordon, "Do you think I read it well enough?" Ruth replied, "Well, I think you could read it better if you read it again." Thereupon Mary cheerfully read it over again.

We had a Verse Assembly one day with the Seven B's in which every one had an opportunity to tell or to read some of his favorite verse. We

worked for a week before, hunting through collections of poetry and through readers for the verses, and practicing reading them aloud. Some of the children knew exactly what they wanted and others needed help in finding out. Jenny, who most often repeated verse to the class, brought her Robert Louis Stevenson from home. Helen brought Emilie Kipp Baker's *First Book of Poetry* and Roger brought some typewritten verse his father had chosen for him. Christina Rossetti, Vachel Lindsay, Lewis Carroll, Mother Goose, were all represented.

I carefully checked the books each child, with the exception of Helen and Sarah, had read. Often books were taken home and parts of them read there. The number of books read by each child is given below, although it does not represent very well the reading ability. In the case of Francis, for instance, several of the books he read were difficult, and he dipped into many without finishing them. Roger, Jenny, and Dorothy each read four primers.

Number of books read by individual children:

Sarah	20	(reported)
Helen	16	(reported)
Ruth	12	
Grace	11	
Roger	10	
Douglas	9	

Mary	9
Walter	7
Dorothy	7
Francis	7
Jenny	5

Some tests in reading were given. The results are shown in the table on page 266. The children enjoyed working with Haggerty's. Some of them later made up very simple ones themselves on the same order and brought them to school. The whole class (with the exception of Dorothy and Jenny) worked perseveringly with the Stanford Achievement Test and two forms of the Thorndike McCall. The first form of the Thorndike McCall Reading Test taxed the powers of Jenny and Dorothy to such an extent that they were able to stay with it but a short time. I told them they need not do the second form and they were very glad to be excused. They were then given Gray's Oral Reading Test by Miss Schriefer. Roger was not present on the day the second form of Thorndike McCall was given. Helen and Sarah both read well at the beginning of the year. As they were not tested then, these tests do not show their gain in reading during the year. Much of their reading period at school was devoted to clay, shop, and other activities. Francis had shown no advantage over the rest of the group at first, but about the fourth month he was reading very

easily. He brought a fat little book to school entitled *Learning to Read Without Tears* which his English nurse had given him. His mother said the year previous he had followed her and his nurse about getting them to read from this book and asking them words from it, so he had evidently laid a good foundation for himself in reading.

ACHIEVEMENT TESTS IN READING
GROUP SEVEN A
May, 1923

	Haggerty Sigma 1 Total Score	Stanford Achievement		Thorndike McCall				Stanford Achievement Dictation	
				Form 1		Form 2			
		Yrs.	Mos.	Yrs.	Mos.	Yrs.	Mos.	Yrs.	Mos.
Helen	44	11	10	12	3	10	10	10	1
Sarah	34	8	10	8	8	9	5	10	6
Ruth	32	9	5	9	2	11	3	10	11
Francis	30	9	11	9	8	10	10	10	1
Douglas	25	9	1	8	8	8	8	9	8
Grace	22	9	1	8	5	9	8	9	7
Walter	22	9	..	8	2	9	8	9	4
Roger	20	8	5	7	6	..	..	8	6
Mary	17	..	..	7	6	..	..	..	..
Dorothy	14	..	..	6	4	..	..	7	6
Jenny	10	7	7	5	10	..	..	8	9

Spelling

The written spelling took up all of the writing periods. Interest grew in making the list as we went on day after day. But it should have been started earlier as our regular program was broken

into the last two weeks of school. We were able to go over only about half of the words on our list. The Stanford Achievement Spelling Test was given. The results are given in the last column of the table on page 266.

Language

One period, a few days after our picnic on Staten Island, when I had only Sarah, Walter, Jenny and Mary, I asked them to picture themselves back at the picnic and remember what they liked best. "Rolling down hill" came from one of them. So I said, "Tell me why you liked it." After I had jotted down their different contributions, I asked them to help me put things in their right places and tell me what they wanted left out. I offered a suggestion once or twice, as: that they did not make me see the colors we had seen that day clearly enough, that they might picture the hens better than by saying they were walking (Walter here substituted "flapping"), and I suggested "grass" in the last line instead of "yard." One of the children objected to Jenny's "Little buttercups going up the hill," but Jenny would not listen to changing it, saying that that was the way they looked as she rolled down—as if they really were going up the hill.

Rolling down the green and grassy hill.
Rolling down the hill all the way down,
Rushing through the tall green grass.

Everything looked upside down and then
right again.
Blue sky down below us.
White clouds sailing across the blue.
And green grass up above.
Little buttercups going up the hill.
Pine cones scattering all around.
Dandelions that the children picked
And blew the white hairs off.
Lovely green trees above us
On the hill tops.
The old, old farmhouse on the hill too.
Cluck, cluck, clucka cluck, cluck,
Speckled hens flapping in the grass.

Walter *Jenny*
Mary *Sarah*

Although there was little time the last month for any written stories, I found a few in individual composition books. Most of the children had been going out to the country on Saturdays and Sundays and several wrote about the spring. Here is the most interesting one:

SPRING

In Spring the Birds Sing so Lihgt—(light). In Spring everybody is in their garden hammock, then they go in for dinner they have a cold dinner. in Spring.

the End

SARAH.

Number

Everyone, except Walter, was finally drawn into a keen interest in the drill side of Number. Even Walter began to weaken. He had greater skill than Francis, but Francis came to show more pleasure in such work. Jenny, Helen, Sarah—and Ruth less frequently—asked for papers of addition combinations to take home at night to work on. They spent many free periods at school with these as well, working with the clock in front of them, and recording the amount of time spent. They also began choosing "Ring Toss" in free periods and sometimes drew other children into the game.

At least three times a week we had drills at the board on the addition and subtraction combinations under 12. One race the children specially liked. Certain combinations, without the answers, were written on the board by each child. Then at the word "go" each one wrote the answers to his combinations, taking a certain position in the middle of the room as soon as he finished, the next child standing next, and so on. They also enjoyed races in which only three or four children participated, the rest of the class watching while these three or four "climbed ladders" of combinations.

The teacher of the Elevens introduced a new card game that the children liked. It involved

practice in adding numbers to endings and so increased their skill. "Slap Jack" began the number lesson on several occasions and never failed to be greeted with enthusiasm.

Toy money was used in the Play City although it was difficult for me to tell to what extent. Many transactions took place between individuals that came to my knowledge only accidentally. Douglas, however, told me he was earning a lot of money in the electrical business and Sarah's pile grew higher all the time. Ross and James, from the Seven B's, were faithful about collecting fines. Occasionally, a child showed that his expenses must have been heavy recently, by choosing free periods for making more money.

The Sevens were invited the last week of school to a meeting with the Eights who have conducted the School Supply Store this year. They were shown over the store and told of the net earnings, approximating $50, from the year's business. The Eights proposed that the Sevens buy the remaining stock and fixtures amounting to about $27, and suggested that they borrow the necessary capital from the School Secretary, Miss Brown, as the Eights themselves had done the year before. The Sevens discussed the plan and decided unanimously to take over the store. They had been looking forward to it all the year as they made their purchases there, or as the Eights delivered

materials to our room. They elected Walter as the secretary and Jenny, who has stood out as the member of the class most rapid and accurate in number, as the Treasurer. Walter then wrote a note to Miss Brown asking for the loan of the money. The money was received and paid to the Eights and the Sevens became the owners of the store.

IV. Organization of Information

Discussions

The two groups of Sevens met together for the purpose of discussing the carrying on of the work of the Play City. Each child became responsible for some part of the work. (*See* Play City.) We had already studied the work of street cleaning and the disposal of rubbish, garbage, and sewage in Manhattan. Now, we entered into a study of the water supply of New York and of its postal service.

The postman came up to our room one day with his mail bag and told the children something about the mail service of New York. He was deluged with questions about what forced the mail through the underground tubes—how fast it went—what trains carried mail—how it was sorted—how he knew which district to go to, et cetera. Then Jenny took him out to the Play City and showed him the Post-Office there.

The Seven B's gave an Assembly on how we get our water in New York. They showed some slides, and also some pictures they had drawn, which were even more interesting, illustrating how the water comes down from the Catskills. They told us how the water is kept clean. They gave us a little history of the water supply of Manhattan—how the Dutch put down wells, and then how a company was formed and piped water into the houses in wooden pipes.

The two groups of Sevens prepared for an Assembly together with slides from the American Museum of Natural History on the "History of Our Country's Transportation." The children were fascinated by the pictures and interrupted continually to add bits to the descriptions of the pictures given by the different members of the groups. The pictures showed:

1. Ways of travel in the early days of our country,
   - Indian trails and caves.
   - Trains of pack horses.
   - Stage coach.
   - First Steamboat.
   - Comparison of New York harbor in 1820 and 1920.
   - The first railroads.
2. Modern transportation facilities,
   - Enormous engines.

Steamers.
Submarines.
Airplanes.

Mrs. Mitchell brought us her picture map of Manhattan and its harbor, and a pilot's chart. She read part of a story she is writing about some children flying in an airplane over Manhattan. She held the absorbed attention of the two groups of Sevens. They followed the map and chart as she read and many interesting discussions arose. The signals of the bell buoys and sirens to warn pilots of the proper channels in the harbor; the lighthouses further inland that the boats must sight continually; the different sandy points, such as Rockaway Beach and Sandy Hook; the hills and valleys under the water and their constant wearing away and changing; the depths of the water compared with the depth of the largest boats—these were all points of great interest.

Trips

Staten Island.

Orientation

Before we went on our picnic to Staten Island, we traced our way there on the map. Several days after our return I told the children to help themselves to some plasticene, if they would like

to make maps of our trip. They started working in groups, drawing outlines of Manhattan and of the coast-lines of New Jersey and Long Island on pieces of cardboard, and then filling in the land with plasticene. But they became so interested that soon each was working on a map of his own. The large picture map of New York City was put up on the drawing-board of the easel in front of them, and Walter and I assisted different children with the outlines, helping them to see where the coast was very irregular and where Long Island and Staten Island almost touched at the Narrows. The maps, as they progressed, took on extreme individuality. Francis put in a raised Sixth Avenue Elevated. Some of the class indicated the Elevated with red paint and the subway with blue. The Statue of Liberty was raised on Bedloe's Island. The Metropolitan and the Woolworth stood out; Central Park and the Battery and much of Staten Island and New Jersey became green. All the water was painted blue and steam boats of plasticene appeared. Each child was eager to take his map home.

Stories

Parts of *Bannertail* by Ernest Seton Thompson, were read to the enjoyment of the class. We had a verse assembly (*See* Reading) in the preparation of which I read aloud some of my

favorite verse and several of the children read theirs. On one of the last days of school, I partly read and partly told Browning's "Pied Piper of Hamelin" and the children listened eagerly.

Science

As told under "The Play City," wires were laid underground and the houses in the Play City were connected with electricity.

REPORT ON MUSIC

GROUP Seven[1] has come to the music room for a half-hour lesson twice each week, with an added free period once a week.

In this free period, those who came did the thing especially interesting to them at the time—composed a song or experimented with the different instruments, many of which were made by the children (groups Seven to Twelve). They also sang favorite songs or continued any game or device especially appealing to them, through which they extended their musical background.

The children have studied songs related to their work or interest, or chosen for broad musical values. The list included:

Windy Night.....Wm. Arms Fisher
Where Go the Boats?.Wm. Arms Fisher
The Morning Song.....Haydn
The Blacksmith.....Brahms
The Evening Star.....Schumann
A Cow Boy's Song...Arr. Natalie Curtis
The Brooklet.....Schubert
The Miller.....Schubert
A Song of Spring.....Mendelssohn
A group of Russian, German, and English *folk songs.*

[1]This includes the children of both Seven A and Seven B groups.

Several of these folk songs were taken as a setting for verses relating to the special work and interest of the group. The children also enjoyed singing songs of their own composition.

Group Seven frequently listened to selections played on the piano, to determine which one they would like to accompany with their "orchestra" of tom-toms, tambourines, and triangles. A director was then chosen, who used the different instruments, as the music proceeded, to express his understanding of the character of the composition. This same "orchestra" had been previously used in their work as six-year-olds to express direct rhythm only.

A partial list of favorites included:

The Piper of Hamelin.....Nessler
March in D.....Tschaikowsky
Polka in B.....Tschaikowsky
Theme from Sonata No. 2....Beethoven
Albumblatt, E minor.....Grieg
Watchman .....Grieg
Album Leaf.....Stephen Heller

Simple songs have been used for hearing, recognizing, and expressing rhythm.

For the same purposes rhythmic games have been used, and again the orchestra. Simple notation leading to staff reading has been a part of the

rhythmic games, and familiar songs have been recognized from their notation on the blackboard. The orchestra was used to play simple rhythmic notation phrases from the blackboard, or the notation of some selection accompanied by the piano.

Pitch has also been studied through simple songs, especially chosen for accurate hearing and expression. In this connection, each child made three-note "Pipes of Pan" from hollow reeds, tuning them with great care and interest to the first three tones of the diatonic scale. Pitch direction has been read and written through the use of lines.

Group Seven has learned to distinguish phrases in a simple musical composition, to give the tonic or rest tone to an unfinished phrase, and to determine the number of notes in a chord.

The children were often eager to make up songs, coming to the music room in groups of three or four.

The songs made as they prepared for their Wheat play serve as an example of this work. As the idea of a Wheat play grew, the children were anxious for every spare moment in order to think out their songs with me or to have me write them down. They brought original verses that were sometimes too cumbersome for music, but by swinging the rhythm as they recited the verses they always discovered this for themselves, and made their own changes. The children first deter-

mined the meter of the song by swinging it as they recited the verses. Then one would start spontaneously to sing a phrase, to be joined by another child with his contribution, and so on until the song was completed. Sometimes several attempts were made before the children were satisfied. I was asked to play over several times what had already been given, while additions were made or choices taken between one of two phrases. It was interesting to see how some of the children, who had made before no attempt to put their words into song, could hardly wait for the music to be taken down. Billy, in his interest in the farm horse, said, "Listen, this is the way he sounds!" Edwin, who sang the boat song, after the introduction by George and Jane of the waves and wind said: "Now this is going to be a fast boat. Be sure to write it this way." In the rain song, which three children did together, one child could hardly wait for the other to take breath before carrying on the melody, although there was a little difficulty in getting started.

The music of all the songs was taken down as given by the children, with no addition or correction of mine. The children's music will be found in the notes of "The Story of the Wheat."[1]

It may be of interest to record one or two lessons to illustrate the use of some of the material noted.

[1] *See* February notes, pp. 192-199.

November 24, 1922

Group Seven entered as "Sellenger's Round" was played for the first time, and started swinging the rhythm at once. They continued after they had seated themselves, a few joining with the melody. Then the group was divided, one half swinging the broad rhythm, the other half clapping the pattern, all singing the melody and hearing the pattern very well.

On the blackboard were the "pitch pictures," in numbered "frames," of four songs which we had been studying within a month: "A Farmer Went Riding," "A Winter Night," "The Jackdaw and the Falcon," "Hardy Sailor Lads." This is a game the children all play, and everyone, with the exception of Ruth, was soon announcing a song he or she had discovered in some one of the "frames." Before singing the songs, the children "tuned" their voices with the directed use of the syllables, *lee, loo, loh, lah,* read from the shapes of the mouth drawn on the board, and sung to the music of an Indian lullaby, familiar to them and well adapted for placing their tones.

This little exercise held the interest of the entire group. Two or three children then took turns in clapping the rhythm of one of the pictured songs, the group finding it, and announcing it by the number on its "frame."

"Hardy Sailor Lads" started out with a stri-

dent voice quality, so we stopped to find the trouble. The children said some were talking the tune instead of singing it. Off we started again and, with the exception of two hard tones from Edwin in a very exciting place, all sang well and with as joyous spirit as before.

As "The Jackdaw and the Falcon" was not yet entirely familiar, we studied it in various ways. The children started the song and continued until I clapped my hands, when they stopped singing, but continued "hearing the music" and, at a clap of the hands, sang aloud again at the point reached. All enjoyed this, and there was good concentration on the part of everyone. Then the children wanted to "play the organ" with the tune, so they clasped their hands to make the "stops" like an organ. I pulled a "stop," the organ "spoke" and gave the tune until it was shut off and another "stop" pulled out. This "stop" then took up the tune at once. There was unflagging attention during the time we played this game, and every child had an opportunity to sing a part of the song alone. Three failed to pick the melody up in rhythm (Francis, Ruth, and Walter). The two remaining songs were sung freely and without interruption.

Numbers 1, 3, 5, 8 of the tone bars[1] were used at the children's request for a "Follow the

[1] Tone bars. (*See* Appendix D.)

Leader'' game. From the pattern given on the piano, Jenny quickly arranged the tone bars in their proper sequence. Helen stood with her back to the tone bars until a phrase was played, when she turned and repeated it correctly. The children were all very eager for a turn, and all succeeded after one or two trials, excepting Walter, who took a little longer time.

With just time for one ''orchestra'' selection, Tschaikowsky's German Melody was chosen in preference to his March. Mary directed the first time, Roger the second. Each had a different interpretation and was criticized by the children, who had decided opinions. The lesson time was extended a few minutes for a selection they had played the lesson before—Nessler's *Pied Piper,* which Grace conducted with splendid spirit and precision, and with great discrimination.

March 16, 1923

The children entered the music room as a spirited Flemish folk song was played on the piano, one which the children were soon to learn. Marching about the room, they swung the rhythm when the piano used the low register, and clapped the rhythm when the music changed to a higher register. The changes were made more or less quickly as the game progressed. Any child not expressing the change at once, dropped out of the

line. The game was played twice before the group seated themselves. Four dropped out the first time; the second time, one.

When the children were seated, an old English song, *The Sun is Rising out of Bed,* was played. The children recognized it, and sang it through three times before all were satisfied. Sarah had a choice of songs, and clapped the rhythm of *A Windy Night* so clearly it was soon recognized. Several examples of the sound of the wind were given by the children and incorporated into the song, the crescendo and diminuendo marks being used in their several ways to illustrate.

Two songs were hummed to the children and heard to be a "new" and an "old" Blacksmith song. One was in the pitch pictures of three numbered "frames" on the blackboard. Irma found it first and said it was the "new one." The "old one" was written in an empty frame by Jenny. A rhythmic game of "Question and Answer" was played. One child, while keeping the definite swing of down and up for two meters, and using the syllable *ta,* asked of the child next him a simple rhythmic combination question; the child responded in similar but not exact pattern, in equally balanced phrase. Original questions and answers in rhythmic form went all around the class, quickly and spontaneously. When at three different times the phrases did not balance, the

children, listening, noticed and corrected it themselves. "Walter had too long a tail on his answer," was one of the corrections made. Connecting this at once with the written symbol, the children followed the pointer up and down a column of two-four rhythmic combinations written on the blackboard, using the syllable *ta* in giving the note values. The children were accompanied by chords on the piano. They determined by the chords when the end of a phrase was reached, and announced whether they were to "stop" or to "go on." Only a short time was left for this work which all were eager to do.

APPENDIX

A. THE WEEK'S PROGRAM

Time	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*
9.00	Discussion	Discussion	Discussion	Discussion	Discussion
9.20	Rhythms	9.30 Writing	Music	Rhythms	9.30 Number
10.00	Shop or Free Period	Shop or Science Laboratory	Shop or Free Period	Reading	Shop or Free Period
11.00	Reading — Shop open also	Reading — Shop open also	Reading — Shop open also	Free Period	Reading — Shop open also
11.30	Number	Number	Writing	11.45 Play in Yard	11.30 Writing
12.00	Play in Yard	Play in Yard	Play in Yard	12.15 Stories	12.00 Play in Yard
12.35	Lunch and Rest Period	Lunch and Rest Period	Lunch and Rest Period	Lunch and Rest Period	Lunch and Rest Period
2.00	Drawing	Stories	Stories	Drawing or Clay	Play in Yard
2.15		Cooking	2.20 Free Period		2.30 Science
2.40	Stories				Music
3.00	Play in Yard			Play in Yard	
3.30	Home	Home	Home	Home	Home

B. THE CLASS

At the beginning of the school year thirteen children were enrolled in the Seven A group. The length of time they had previously spent in the school and their ages on October 1, 1922, are shown in the following list:

Dorothy,	7	yr.,	1	mo.—	first	entered	Oct.,	1919
Douglas,	7	"	4	"	"	"	Oct.,	1920
Francis,	6	"	10	"	"	"	Nov.,	1921
Gordon,	6	"	11	"	"	"	Oct.,	1920
Grace,	7	"	10	"	"	"	Oct.,	1919
Helen,	6	"	10	"	"	"	Oct.,	1922
Jenny,	7	"	7	"	"	"	Oct.,	1921
Julia,	7	"	1	"	"	"	Oct.,	1920
Mary,	7	"	5	"	"	"	Oct.,	1918
Roger,	6	"	11	"	"	"	Oct.,	1920
Ruth,	7	"	1	"	"	"	Oct.,	1919
Sarah,	7	"			"	"	May,	1919
Walter,	7	"	4	"	"	"	Oct.,	1919

Two children did not attend school during the second term—Gordon, whose trip to California is mentioned in the record, and Julia, always irregular in attendance, and finally withdrawn because of illness.

The children of the Seven B group co-operated with the Seven A's in various undertakings and are indicated in the record by the following names:

Billy, Edwin, George, James, Jane, Jean, Martha, Maude, Nancy, Otto, Ross.

C. THE STAFF

In addition to Miss Lula E. Wright, the class teacher, Group Seven A had work with the following special teachers:

Ruth Doing, *Rhythmics.*
Winifred C. Hannum, *Cooking and Sewing.*
Harriette H. Hubbell, *Music.*
Willy Levin, *Modeling.*
Morris Meister, *Science.*
Lucy Sprague Mitchell, *Language.*
Henry Paley, *Science.*
Neil E. Reber, *Shop.*

Mr. William Zorach also visited the class as art adviser.

D. SPACE AND FURNISHING

Group Seven A had the use of two small classrooms which were furnished with individual folding-tables, chairs, individual cupboards, blackboards, a cupboard for common supplies, painting table, and easel. The children also worked in the shop, kitchen, pottery room, science laboratory, library, music room and gymnasium.

There were three playgrounds to which the group had access: one large one with a high slide

and a swing, where most of the games were played; one smaller one equipped with a slide, ladders, parallel bars, see-saw, wagons, empty packing boxes, the large hollow blocks known as "yard blocks," a supply of boards for building, shovels, and a space filled with pebbles. Then there was the "river yard," with cement water tank, and cement river bed widening out into a harbor, where the children worked and played during the year, building the Play City.

E. MATERIALS USED IN THE CLASS ROOM:

Colored crayons, water-colors, fresco paints, show card colors, newsprint paper (large unprinted newspapers), large and small sheets of drawing paper, brushes of different kinds, colored paper for cutting, colored mounting paper, plasticene, whipple board, brass fasteners, rings for loose-leaf books, glue, paste, yard-sticks, rulers.

Wide-spaced writing paper, pencils, typewriter, typewriting paper, Superior Price and Sign Marker.

Globe, picture map and different maps of New York City, blackboard world-map, blackboard map of the United States.

Meccano, clock face, clock, thermometer, box of small colored blocks for number work.

Games: Tenpins, lotto, parcheesi, ring toss, dominoes.

Sewing and weaving materials: Unbleached

muslin, colored cambric, cheese-cloth, colored worsteds, darning needles, thread, hand sewing-machine, carpet roving, macromé cord, scissors.

Materials used in the science laboratory (which was supplied with switchboard and water trough, also with water faucet, gas connection, and electric light plug for each child): Small sockets, bulbs, big coil of wire, bells and buttons, toy telegraph, small rubber tubing, and Magdeburg hemispheres.

Materials in the pottery room: Clay, tools, and glazes. The clay was fired in the school kiln.

Materials used in the music room: Tom-toms, tambourines, triangles, drum, baton, pipes of Pan (made by the children from hollow reeds), tone bars (bars of metal, sometimes called orchestra bells, mounted on separate pieces of wood and tuned to the diatonic scale).

Books (used for illustrative purposes and for reference): Braine, *Merchant Ships;* Grant, *The Story of the Ship;* Straubenmuller, *A Home Geography of New York City;* Redway, *The Making of an Empire State;* Singleton, *The Children's City;* Smith, *Eskimo Stories;* Tappan, *Travelers and Traveling;* Jewett, *Town and City,* Gulick Hygiene Series; *Social Science Pamphlets,* published by the Lincoln School; *National Geographic Leaflets,* National Geographic Society; Tappan, *The Farmer and His Friends;* Carpenter, *How the World is Fed;* Chamberlain, *How We are Fed;* Bengston and Griffith, *The Wheat Industry;* Smith, *Human Geography,* Bk. I; Smith, *Railroad*

Book, Farm Book, Seashore Book; Skinner, *Indians of Manhattan Island and Vicinity;* King, *Views of New York; Wonder Book of Railways,* edited by Goldine; *National Geographic Magazine, Jan.,* 1916-Apr., 1923; Atlas of the World.

Stories and Collections of Stories: Jordan, *Book of Knight and Barbara;* Mitchell, *Here and Now Stories;* Peary, *Snowland Folk;* Bailey, *Stories Children Need;* Bryant, *Best Stories to Tell to Children;* Browning, *The Pied Piper of Hamelin Town;* Grahame, *The Wind in the Willows;* Hopkins, *The Sandman, More Farm Stories, The Sandman, His Ship Stories;* Thompson-Seton, *Wild Animals I Have Known, Biography of a Grizzly, Bannertail;* Kipling, *Just So Stories, The Jungle Book, The Second Jungle Book;* Miller, *My Bookhouse,* Bks. I, II, III; Mukerji, *Kari, the Elephant.*

Collections of Verse: Wiggin, *The Posy Ring;* Skinner and Wickes, *Child's Own Book of Verse,* Bks. I, II; Grahame, *The Cambridge Book of Poetry;* R. T. Stevenson, *Home Book of Verse;* R. L. Stevenson, *A Child's Garden of Verse.*

Books read by different members of the group: Winston, *Primer, First Reader, Second Reader;* Baker and Thorndike, *Primer, First Reader, Second Reader;* Free and Treadwell, *Primer, First Reader, Second Reader; Story Hour Primer; Hiawatha Primer;* Progressive Road to Reading, *Primer;* Brooke, *Johnny Crow's Garden;* Potter, *Peter Rabbit;* Bannerman, *Little*

Black Sambo; Lear, *Nonsense Rhymes, Alphabet Book;* Caldecott, *Mother Goose;* Bates, *Fairy Tale of a Fox, a Dog and a Magpie;* Carrick, *Russian Picture Tales, More Russian Picture Tales, Still More Russian Picture Tales; Francis Parker Leaflets,* Grade I and II, published by the Francis Parker School, Chicago; Kipling, *Just So Stories, Jungle Book;* Mitchell, *Here and Now Stories;* Dopp, *Early Cave Men, Tree Dwellers;* Carroll, *Around the World, Bk. I;* Moore, *Pennies and Plans;* Smith, *Eskimo Stories;* Chance, *Little Folks in Many Lands;* Serle, *In Fableland;* Wiley, *Mewanee, the Little Indian Boy;* Jenks, *The Childhood of Ji-shib;* Lyons and Carnahan, *Red Feather;* Perdue, *Child Life in Other Lands;* Smith, *Arabella and Araminta;* Skinner, *The Tale of Tibby and Tabby;* Baldwin, *Fairy Stories and Fables;* Lucia, *Peter and Polly in Spring, Peter and Polly in Summer, Peter and Polly in Winter;* Siberiak, *Verotchka's Tales;* Potter, *Pinafore Pocket Story Book;* Bye-low Series, *Jumping Joan;* Alexander, *Child Classics,* Bks. I and II; Adams, *Five Little Friends;* Burnett, *Rackety Packety House;* Craik, *Bow-wow and Mew-mew;* Adelberg, *Clean Peter;* Perkins, *The Dutch Twins;* Stevenson, *A Child's Garden of Verse;* H. H., *Letters from a Cat;* Freeman, *The Cat that Was Lonesome.*

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